

# the **SUSTAINABLE DIFFERENCE**

ENERGY AND  
ENVIRONMENT  
TO ACHIEVE THE MDGs



## **The Cover Page: A Story to Tell**

One of the major objectives of UNDP's work in Energy and Environment is achieving sustainable development through its work on capacity building, policy advice and knowledge management generated by its trust funds' funded programmes and projects. Through its network of professionals in 166 countries UNDP's Energy and Environment practitioners make a difference on a daily basis working with governments, NGOs, CBOs and local communities, hence the title, "The Sustainable Difference", while the subtitle, "Energy and Environment to Achieve the MDGs" highlights the essential role of Energy and Environmental services as building blocks to achieve the entire spectrum of the MDGs. UNDP, through its focus and alignment with the WEHAB, has adopted six priority areas for its work in Energy and Environment; Strategies for Sustainable Development, Water Governance, Sustainable Energy, Land Management, Biodiversity and Chemicals. These are represented by the six circles on the front and back covers. UNDP's strength comes from its presence in the five regions of the world; Africa, Asia and the Pacific, the Arab states, Europe and the CIS and Latin America and the Caribbean. The pictures represent each of these regions and at the same time reflect the linkages between environmental resources and people – linkages that are essential to achieving the MDGs. However, the global nature of UNDP's work on the ground as well as at the international fora and conventions is illustrated by the circles representing the globe. In addition, these circles represent the circles of knowledge, one of UNDP's strengths and key services that contribute to our success on the ground. While pictures on the back cover also represent our six priority areas and five regions, they show the children of the world, reflecting our current responsibility for the well-being of future generations.



# the **SUSTAINABLE DIFFERENCE**

## ENERGY AND ENVIRONMENT TO ACHIEVE THE MDGs

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## **Disclaimer**

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*Today, the scientific community increasingly recognizes that environmental degradation is having a significant impact on human development. Notably, it is the poor who are disproportionately affected by the degradation of their land, air, water and biological resources, with many lacking access to clean and affordable water and energy services.*

*Ensuring environmental sustainability and access to energy services is key to achieving all of the Millennium Development Goals (MDGs) – the eight goals that represent a global commitment to make rapid progress on key development issues.*

*This book is an important illustration of UNDP's work on energy and environment for sustainable development and poverty reduction in pursuit of the MDGs. It describes UNDP's efforts on the ground to support 140 countries to integrate energy and environment issues into their national development plans and poverty reduction strategies through capacity development, policy advisory services and trust fund management.*

*"The Sustainable Difference" book is not only a compendium of programmes in countries supported by UNDP, but it is also a demonstration of the important role that energy and natural resources play in both providing the poor with means to improve their livelihoods, as well as protecting nature's capacity to provide invaluable ecosystem services upon which economic growth depends. "The Sustainable Difference" book shows how local communities in many countries throughout the world - from Albania and Belize to Botswana, Papua New Guinea and Syria -- are working with their limited resources to sustain their own livelihoods and to contribute to addressing global challenges.*

*UNDP has one of the largest energy and environment portfolios building capacity at the country level and has undertaken significant work in water governance, sustainable land management, the conservation and sustainable use of biodiversity, and the reduction of greenhouse gases. It has mobilized over US\$7 billion through more than 10,000 large and small-scale projects and in partnership with other UN organizations, governments, NGOs, civil society organizations, and the private sector.*

*I hope that this book contributes to the increasing awareness that achieving MDG 7 and ensuring that people have access to vital environmental resources, as well as basic energy, water and sanitation services at local and regional levels is critical to achieving all of the Millennium Development Goals.*

**Kemal Dervis**  
**UNDP Administrator**

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<b>Aarhus Convention</b>	Convention on Access to Information, Public Participation in Decision-making and Access to Justice in Environmental Matters
<b>ADB</b>	Asian Development Bank
<b>AECI</b>	Agencia Española de Cooperación Internacional
<b>AFD</b>	Agence Française de Développement
<b>AFDB</b>	African Development Bank Group
<b>AKDN</b>	Aga Khan Development Network
<b>APN</b>	Asia Pacific Network
<b>ARAMCO</b>	Saudi Arabia Oil Company
<b>AusAID</b>	Australia's Overseas Aid
<b>BAD</b>	La Banque Africaine de Développement
<b>BBTT</b>	BP (energy company) at Trinidad & Tobago
<b>BCPR</b>	UNDP's Bureau for Crisis Prevention and Recovery
<b>BiH</b>	Bosnia and Herzegovina
<b>BOAD</b>	Banque Ouest Africaine de Développement
<b>BTC Pipeline</b>	Baku-Tbilisi-Ceyhan pipeline
<b>CARE</b>	Cooperative for American Relief Everywhere, Inc.
<b>CBDD</b>	Centre Beninois pour le Développement Durable
<b>CBLT</b>	Commission du Bassin du Lac Tchad
<b>CBO</b>	Community-based Organisation
<b>CDER</b>	Center for Development of Renewable Energies
<b>CEE</b>	Council of Environmental Education (UK)
<b>CFA</b>	Communauté Financière Africaine
<b>CIDA</b>	Canadian International Development Agency
<b>CIID</b>	Centro Internacional de Investigaciones para el Desarrollo
<b>CILSS</b>	Comite Permanent Inter-Etats De Lutte Contre La Secheresse Dans Le Sahel
<b>CO</b>	Country Office
<b>COP</b>	Conference of the Parties
<b>COSUDE</b>	Agencia Suiza para el Desarrollo y la Cooperacion
<b>CSO</b>	Civil Society Organization
<b>DANIDA</b>	Danish International Development Agency
<b>DDC</b>	Drylands Development Centre (UNDP)
<b>DED</b>	German Development Service
<b>DFID</b>	UK Department for International Development
<b>DFGFI</b>	The Dian Fossey Gorilla Fund International
<b>DGIS</b>	Netherlands Ministry of Foreign Affairs
<b>DPRK</b>	Democratic People's Republic of Korea
<b>EC CARDS</b>	European Commission for Albania, Bosnia and Herzegovina, Croatia, Macedonia, Serbia and Montenegro
<b>EEAA</b>	Egyptian Environmental Affairs Agency
<b>Energy TTF</b>	UNDP's Thematic Trust Fund
<b>EU</b>	European Union
<b>EU-CARDS</b>	EU's Community Assistance for Reconstruction, Development and Stabilization
<b>FAO</b>	United Nations Food and Agriculture Organization
<b>FDFFP</b>	Fonds de développement de la formation professionnelle



<b>FEM</b>	le Fond pour l'Environnement Mondial
<b>FFEM</b>	Fonds Français pour l'Environnement Mondial
<b>FINNIDA</b>	Department for International Development Cooperation Finland
<b>FSSD</b>	Frameworks and Strategies for Sustainable Development (UNDP)
<b>FYROM</b>	Former Yugoslav Republic of Macedonia
<b>GA</b>	Government of Albania
<b>GAIN</b>	Greening Afghanistan Initiative
<b>GDP</b>	Gross Domestic Product
<b>GEF</b>	Global Environment Facility
<b>GEF/SGP</b>	Global Environment Facility's Small Grants Programme
<b>GHG</b>	Greenhouse gases
<b>GOA</b>	Government of Argentina
<b>GTZ</b>	German Agency for Technical Cooperation
<b>GVEP</b>	Global Village Energy Partnership
<b>HDI</b>	Human Development Initiative
<b>HelpAge</b>	Global network of not-for-profit organizations with a mission to help disadvantaged older people worldwide
<b>IBRD</b>	International Bank for Reconstruction and Development
<b>ICEF</b>	India-Canada Environment Facility
<b>IDA</b>	World Bank's International Development Association
<b>IDB</b>	Inter-American Development Bank
<b>IDRC</b>	International Development Research Center (Canada)
<b>IEPF</b>	l'Institut de l'énergie et de l'environnement de la Francophonie
<b>IFAD</b>	International Fund for Agricultural Development
<b>IFC</b>	International Finance Corporation (World Bank)
<b>IGCP</b>	International Gorilla Conservation Program
<b>IGP</b>	Instituto Geofísico del Perú / Peruvian Geophysical Institute
<b>ILO</b>	International Labour Organisation
<b>ITDP</b>	The Institute for Transportation and Development Policy
<b>IUCN</b>	The World Conservation Union
<b>JICA</b>	Japanese International Cooperation Agency
<b>KACST</b>	King Abdulaziz City for Science and Technology
<b>Kfw</b>	German Development Bank
<b>LDCs</b>	Least Developed Countries
<b>LIFE</b>	Local Initiatives for Urban Environment
<b>LPG</b>	Liquefied Petroleum Gas
<b>MDG</b>	Millennium Development Goal
<b>MDGR</b>	Millennium Development Goals Report
<b>MDGs</b>	Millennium Development Goals
<b>Me. Br.</b>	Methyl Bromide
<b>MGVP</b>	Morris Animal Foundation's Mountain Gorilla Veterinary Project
<b>MINITERE</b>	Ministère Des Terres, De L'environnement, Des Forêts, De L'eau Et Des
<b>Ressources Naturelles</b>	République Rwanda
<b>MLF</b>	Multilateral Fund of the Montreal Protocol
<b>MNREP</b>	Ministry of Natural Resources and Environmental Protection of Belarus

<b>MOFA</b>	Ministry of Foreign Affairs (Saudi Arabia)
<b>MPMF</b>	Montreal Protocol Multilateral Fund
<b>MPU</b>	Montreal Protocol Unit
<b>MRC</b>	Mekong River Commission
<b>NAP</b>	National Action Programme to Combat Desertification
<b>NAPA</b>	National Adaptation Programme of Action
<b>NBSAP</b>	National Biodiversity Strategy and Action Plan
<b>NCSA</b>	National Capacity Self-Assessment
<b>NCWCD</b>	National Commission for Wildlife Conservation and Development (Saudi Arabia)
<b>NEAFF</b>	Northeast Asian Forest Forum
<b>NEAP</b>	National Environmental Action Plan
<b>NEFCO</b>	Nordic Environment Finance Corporation
<b>NET</b>	Government of the Netherlands
<b>NIPs</b>	National Implementation Programmes
<b>NGO</b>	Non-governmental organisation
<b>NORAD</b>	Norwegian Agency for Development Cooperation
<b>NZAID</b>	New Zealand Agency International Aid and Development Agency
<b>ODP</b>	Ozone-depleting Potential
<b>ODS</b>	Ozone-Depleting Substances
<b>OECD</b>	Organisation for Economic Co-operation and Development
<b>OMVS</b>	L'Organisation pour la mise en valeur du fleuve Sénégal
<b>ONUDI</b>	Organisation des Nations Unies pour le Développement Industriel
<b>OPEC</b>	The Organization of the Petroleum Exporting Countries
<b>ORTPN</b>	Rwanda Tourism Board offices
<b>OSCE</b>	The Organization for Security and Co-operation in Europe
<b>Otto</b>	Michael Otto Foundation for Environmental Protection
<b>PDF</b>	Project Development Facility
<b>PGTF</b>	Perez-Guerrero Trust Fund
<b>PICs</b>	Pacific Island Countries
<b>POPs</b>	Persistent Organic Pollutants
<b>PPPUE</b>	UNDP's Public-Private Partnerships for the Urban Environment
<b>PRS</b>	Poverty Reduction Strategy
<b>PRSP</b>	Poverty Reduction Strategy Paper
<b>PV</b>	Photovoltaic
<b>RAMSAR</b>	The Annotated Ramsar List of Wetlands of International Importance
<b>RBEC</b>	UNDP's Regional Bureau for Europe and CIS
<b>REC</b>	The Regional Environmental Center for Central and Eastern Europe
<b>REMA</b>	Rwanda Environment Management Authority
<b>RFT</b>	Banco Mundial o Fundo para a Floresta Tropical (Brasil)
<b>RFTF</b>	World Bank's Rain Forest Trust Fund
<b>RSPB</b>	Royal Society of the Protection of Birds
<b>SABIC</b>	Saudi Arabia Oil Company
<b>SCAC</b>	Le Service de Coopération et d'Action Culturelle
<b>SDC</b>	Swiss Agency for Development and Cooperation
<b>SDS</b>	Society of the Divine Savoir

<b>SEC</b>	Saudi Arabia Electric Company
<b>SFD</b>	The Saudi Fund for Development
<b>SGP</b>	Small Grants Programme
<b>SHD</b>	Sustainable Human Development
<b>SIDA</b>	Swedish International Development Cooperation Agency
<b>SIDS</b>	Small Island Developing States
<b>SNV</b>	Netherlands Development Organization
<b>SPR</b>	Strategy for Poverty Reduction
<b>STCU</b>	Science and Technology Centre in Ukraine
<b>TACIS</b>	EU Programme for Eastern Europe
<b>TIKA</b>	Turkish International Cooperation Administration
<b>TRAC</b>	Transnational Resource and Action Center
<b>TTF</b>	Thematic Trust Fund
<b>UNCBD</b>	United Nations Convention on Biological Diversity
<b>UNCCD</b>	United Nations Convention to Combat Desertification
<b>UNCDF</b>	United Nations Capital Development Fund
<b>UNCED</b>	United Nations Conference on Environment and Development
<b>UNDAF</b>	United Nations Development Assistance Framework
<b>UNDP</b>	United Nations Development Programme
<b>UNDP/DDC</b>	UNDP Drylands Development Centre
<b>UNDESA</b>	United Nations Department of Economic and Social Affairs
<b>UNEP</b>	United Nations Environment Programme
<b>UNESCO</b>	United Nations Educational, Scientific and Cultural Organization
<b>UNF</b>	United Nations Foundation
<b>UNFCCC</b>	United Nations Framework Convention on Climate Change
<b>UNFIP</b>	United Nations Fund for International Partnerships
<b>UNFPA</b>	United Nations Population Fund
<b>UN Habitat</b>	United Nations Human Settlement Programme
<b>UNICEF</b>	United Nations Children's Fund
<b>UNIDO</b>	United Nations Industrial Development Organization
<b>UNITAR</b>	United Nations Institute for Training and Research
<b>UNSO</b>	UN office to Combat Desertification and Drought
<b>UNOCHA</b>	United Nations Office for the Coordination of Humanitarian Affairs
<b>UNU</b>	United Nations University
<b>UNV</b>	United Nations Volunteers
<b>UR</b>	University of Rome
<b>USAEP</b>	The US Asia Environment Partnership
<b>USAID</b>	United States Agency for International Development
<b>WB</b>	World Bank
<b>WCS</b>	Wildlife Conservation Society
<b>WFP</b>	United Nations World Food Programme
<b>WHO</b>	World Health Organization
<b>WSSD</b>	World Summit on Sustainable Development
<b>WWF</b>	World Wildlife Fund
<b>WWFSA</b>	World Wide Fund for Nature South Africa

# INTRODUCTION AND OVERVIEW

by Olav Kjørven, Director, UNDP Energy and Environment Practice

In April 2004, UNDP released a sourcebook on its country-level initiatives for promoting environmental sustainability. The sourcebook contained country-by-country factsheets on key sustainable development indicators, brief descriptions of areas where UNDP was focusing its activities in each country, and information on the status of each country's acceptance of major multilateral environmental agreements. The response was so overwhelming that we decided to produce a second, expanded edition.

This new edition of the sourcebook, "The Sustainable Difference": Energy and Environment to Achieve the MDGs, documents UNDP's efforts on the ground to support more than 140 countries in integrating energy and environmental issues into their national development plans, poverty reduction strategies, and other key policy and institutional fora.



Contained in this volume is an expanded section of 142 country profiles summarizing key environmental challenges in each of the countries in which UNDP operates, and providing an overview of ongoing UNDP-supported energy and environment programmes and projects and their impacts. These country profiles are followed by data tables presenting the most up-to-date environmental indicators available for each country from UNDP's Human Development Report 2005 as well as information on the status of international environmental agreements and conventions, including signatories and ratification.



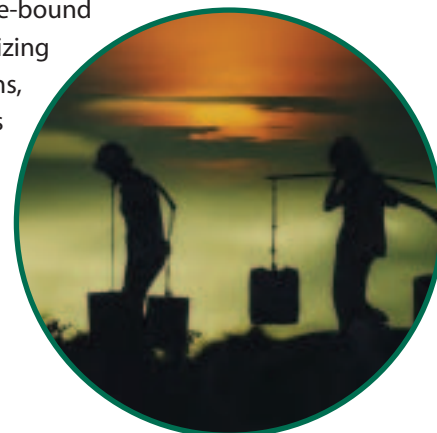
However, "The Sustainable Difference" is more than just a compendium of programmes in countries supported by UNDP. It is a demonstration of the critically important role played by energy and natural resources and systems in meeting human aspirations and eradicating poverty. It is also, I believe, an eloquent testament to the depth and breadth of UNDP's engagement with issues of energy and environment, and our efforts to create and sustain partnerships that support developing countries, poor people and poor communities in building their capacity to integrate energy and environmental considerations into their development decision-making. "Partnership" is really a key term. The extent, impact and sustainability of our efforts fundamentally depends on our ability to work closely with others, especially national governments, but also other members of the UN family, the private sector and civil society organisations.

To assist our partners, donors and other readers in assimilating, understanding and interpreting the information presented in "The Sustainable Difference", I would like to briefly lay out some essential context about the role of energy and environment within the broader development debate and about the role of UNDP in supporting developing countries' efforts to address these issues.

## AN HISTORIC OPPORTUNITY TO ADVANCE THE DEVELOPMENT AGENDA

The world is now witnessing an unprecedented alignment around a common set of time-bound and measurable goals, the Millennium Development Goals (MDGs). The MDGs are galvanizing developed and developing countries, the UN system and other multilateral institutions, regional organizations, and civil society alike. Moreover, this rallying around the MDGs is backed by political will, significant financial resources, and an implementation plan. It is truly an historic opportunity that the world cannot afford to squander.

At the same time, it is becoming clearer every day that the degradation of ecosystems and the spectre of abrupt, unpredictable, and possibly irreversible global environmental



change threaten decades of development effort. As documented by the recently completed Millennium Ecosystems Assessment, human activities over the past 50 years have rapidly and extensively altered ecosystems and their capacity to sustain life, human well-being and economic and social development. Dramatic rises in consumption of ecosystem services—including fresh water, capture fisheries, air and water purification, and climate-regulating services—have brought greater prosperity to many people around the world but they have also brought about greater poverty and marginalization as a result of depletion and even destruction of such key services.



It is a cruel irony that the poor communities and developing countries that have benefited least from rising consumption of ecosystem services are now bearing the brunt of the costs of overconsumption by the more affluent and the deficient environmental policies and management systems generally in place. The livelihoods of the rural poor suffer the most from the declining ability of natural systems to provide clean water and to support agricultural production. The poor are at the greatest risk from conflicts between peoples locked in desperate, escalating struggles for access to land and resources amidst environmental decline. And the poor are most vulnerable to the exacerbated destructive potential of natural disasters, such as droughts and floods, in degraded landscapes.

The Millennium Ecosystem Assessment and other global and regional studies have established beyond doubt the linkages between poverty, security and the environment. Achievement of the MDGs and eradication of poverty will not be possible without taking on the issue of environmental sustainability and without increased access to modern energy services. Against this backdrop, UNDP and other partners are undertaking a concerted effort to ensure that the critical role of energy and environment in attaining all the MDGs is well communicated, understood and represented in the lead up to the 2005 World Summit and other major gatherings of world leaders. This book is part of that effort as well. It also illustrates progress made by countries to achieve MDG 7 and efforts exerted by UNDP to help them reach this goal.

### UNDP'S ENERGY AND ENVIRONMENT PRACTICE: PARTNERSHIPS FOR CHAMPIONING THE NEEDS AND RIGHTS OF THE POOR

To respond to the monumental opportunities created by the current multilateral alignment behind a common global development agenda, UNDP's Energy and Environment Practice and its partners must make it our priority to help developing countries tackle the issue of sustainability on the road to reaching the MDGs. As the largest source of technical assistance for energy and environmental management, with a portfolio of ongoing energy and environment projects amounting to about US\$7 billion, UNDP works with many, diverse partners to offer countries and communities practical tools for transforming the MDGs into action on the ground. Our approach to sustainability is anchored in the MDGs and in the realization of the need for initiatives that generate multiple environmental, social and economic dividends across all eight Goals.



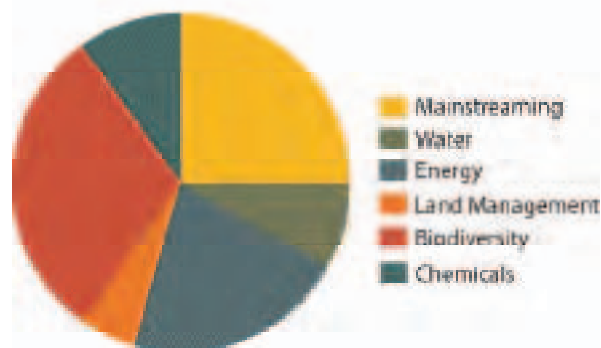
UNDP focuses on building the capacity of developing countries to manage energy and environmental change—capacity that is crucial to ensuring economic and social stability as well as sustained progress in eradicating poverty. Key elements of this capacity development effort address improved environmental governance, technological innovation and diffusion, and enhanced financing mechanisms. Together, these elements can empower developing countries to put themselves on a path to MDG-based strategies for reducing poverty while taking sustainability fully into account.



# INTRODUCTION AND OVERVIEW

UNDP's partnerships engage not only donor governments, developing-country governments, and multilateral organizations (such as other UN agencies and the World Bank), but also civil society organizations, universities, research institutions and the private sector. Some of these partnerships address specific issue areas — for instance, the Equator Initiative and its work with partners from governments, civil society, grassroots organizations and the private sector to build capacity and raise the profile of local efforts to reduce poverty through the conservation and sustainable use of biodiversity. Similarly, the Global Village Energy Partnership engages partners from governments, international agencies, the private sector, nongovernmental organizations, and consumers to accelerate provision of modern energy services to the underserved.

DISTRIBUTION OF 2004 PROGRAMME RECORDED DISBURSEMENT PER ENERGY AND ENVIRONMENT PRACTICE PRIORITY AREA



## SERVICE LINES OF THE UNDP ENERGY AND ENVIRONMENT PRACTICE

Effective Water Governance  
Access to Sustainable Energy Services  
Sustainable Land Management  
Conservation and Sustainable Use of Biodiversity  
Environmental Mainstreaming  
Chemicals Management

## CROSS-CUTTING INITIATIVES

Climate Change  
Poverty-Environment Initiative  
Environmental Governance  
Community-Based Initiatives

Across the 140-plus country profiles presented in “The Sustainable Difference”, readers will find detailed evidence of the depth as well as the diversity of support that UNDP is providing to partner governments.

In most of the country profiles, a ‘Project Spotlight’ tells the story of a specific initiative and its impacts on poverty, environment and sustainable development. These spotlight stories reveal progress on numerous fronts across all developing regions—traversing a broad spectrum from projects to increase access to safe water and sanitation to biogas conversion projects to climate-saving manufacturing processes for small and medium-sized enterprises.

Each country profile also presents a table outlining UNDP-supported activities in each of six energy and environmental issue areas, or UNDP ‘service lines’. To help the reader place this information in context, the following pages provide an overview of the six service lines in UNDP’s Energy and Environment Practice, their principal approaches and key anticipated impacts. In addition, the Energy and Environment Practice encompasses four cross-cutting initiatives.



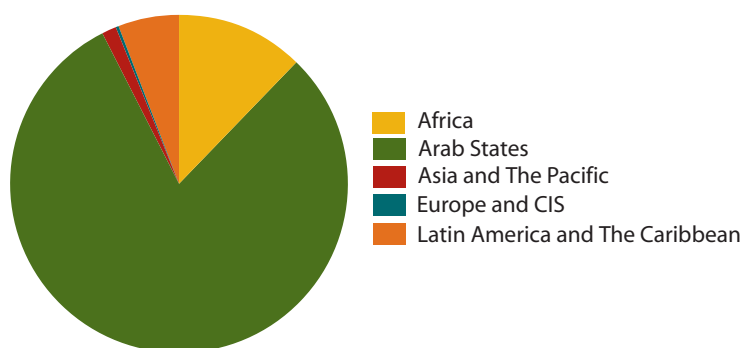


## UNDP SERVICE LINE: EFFECTIVE WATER GOVERNANCE

The world over, water flows upstream towards the rich and powerful. Poor people are largely excluded from decision-making about the management and allocation of the water resources they need to grow their food, earn their livelihoods, and protect their health. More than a billion people lack access to a safe water supply, and in many parts of the world, consumption of and competition for increasingly precious water resources have intensified dramatically in recent decades. For many of the poor, water shortages, water quality degradation, and destruction of formerly productive aquatic ecosystems are seriously diminishing their prospects for economic and social development, poverty reduction, and political stability.

This global water crisis results not from natural limitations of water supply or lack of technology or finance (though these factors may play a contributing role), but rather from profound failures in water governance—that is, the range of political, social, economic, and other systems that regulate the development and management of water resources and the provision of water at different levels of society. The solution to water crises, now and in the future, is more often to be found in changing the way we use and manage water than in technological advances or supply-oriented approaches.

2004 DISBURSEMENT ON WATER GOVERNANCE IN ALL REGIONS



Source: Multi Year Financial Framework Report for 2004

### UNDP Responds to Country Demands

**The Arab Region is facing the most challenging water resources conditions in the world. Recognizing this fact and based on demands by countries in the region, UNDP's country office recorded disbursements in 2004 on effective water governance in this region represented 72% of total disbursement in all regions on water projects. The share of donors and local government resources represented 97% highlighting the importance of the water situation in this region.**

Thus, UNDP's response has been to emphasize an integrated water resources management (IWRM) approach based on effective water governance. Good water governance is a prime vehicle for ensuring that local and national governments as well as the international system as a whole give priority to the needs of the poor in setting water policy and in designing

### UNDP'S WATER GOVERNANCE PRIORITIES & APPROACHES

- Support holistic, efficient and equitable water resources management in the context of national development frameworks
- Promote cooperation on regional and global water challenges
- Advocate for decentralized water resources management in national and subnational policy, legal, institutional, regulatory, and budget frameworks
- Encourage gender mainstreaming in water governance
- Strengthen capacity building networks for improved management of water resources
- Promote incorporation of climate change adaptation in national water governance strategies

### OUTCOMES & IMPACT

- Strengthened capacity of government and civil society to apply methods and tools related to integrated water resources management
- Mainstreaming of local, national, regional and global water resources objectives into poverty reduction strategies, macroeconomic and sectoral policies, and other policy and planning frameworks
- Empowerment of marginalized and vulnerable groups to participate in decision-making processes concerning water resources
- Enhanced transparency and accountability of water governance systems
- Increased access to and control over water resources for the poor
- Integration of gender perspectives in water governance and empowerment of women as water managers

# INTRODUCTION AND OVERVIEW

water and sanitation services. Moreover, effective water governance is a precondition for implementing holistic, integrated water management strategies that balance sometimes competing needs for environmental sustainability, economic growth, and equitable access to water resources. UNDP works at both the policy level and through direct support to communities to strengthen water governance, improve water resources management, and ensure the responsiveness of policy to the needs of the poor.

UNDP's water portfolio is made up of projects in more than 80 countries, with financing in excess of US\$140 million. In addition, the Global Environment Facility has mobilized about US\$480 million at the regional and global levels for its work on international waters and transboundary water systems, resulting in the signature of a number of treaties and conventions.

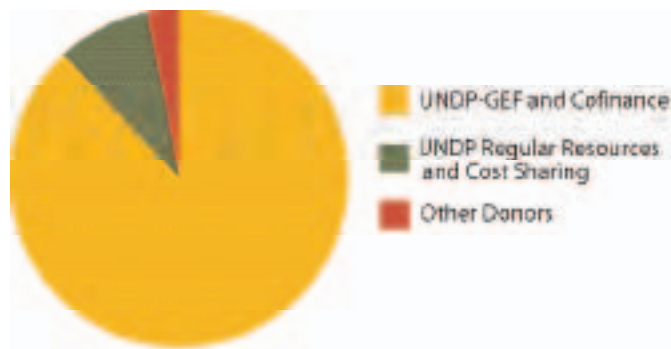


## UNDP SERVICE LINE: ACCESS TO SUSTAINABLE ENERGY SERVICES

For the poor, access to greater quality and quantity of energy services is an essential prerequisite to making the transition from subsistence livelihoods to increased productivity, income generation, and improved living standards. Energy is not an end in itself, but rather the services provided by modern energy sources (heat, motive power, refrigeration, etc.) are pivotal contributors to human welfare and economic development. Studies link increases in energy services (through access to modern fuels and electricity) to improved levels of human welfare as measured by the Human Development Index (HDI). For the poorest people and countries, small, incremental increases in access to modern energy have led to dramatic gains in HDI.

About 1.6 billion people have no access to electricity and 2 billion still rely on traditional fuels such as wood, dung, and

UNDP SUSTAINABLE ENERGY ONGOING PORTFOLIO IN MILLION US\$ AT THE COUNTRY LEVEL



Source: GEF and UNDP Fiscal System  
Other Donors: Donors channeling resources through UNDP offices

agricultural residues to meet their heating and cooking needs. Providing the poor with access to clean, modern, affordable energy services has multiple, synergistic impacts on productivity, education, health, and gender equality. Access to modern energy frees the poor, especially women and girls, from the drudgery of collecting fuelwood, thus expanding opportunities for schooling and after-school study. Use of clean modern energy sources also reduces damage to health from exposure to high levels of indoor air pollutants from burning of solid fuels (wood, dung, etc.) for cooking and heating.

UNDP's activities focus on the upstream enabling environment and policies needed to support energy options that simultaneously meet developing countries' multiple economic, social, and environmental goals. Downstream activities concentrate on integrated energy solutions to promote access to energy services to support household and productive activities in rural areas as well as access to clean energy technologies, including modernized biomass, photovoltaics, wind, hydrogen, and other renewable energy options. UNDP's energy portfolio is the largest among the UN agencies, totaling around US\$2 billion. The Global Environment Facility and its co-financing account for the bulk of this amount, including medium- and large-scale climate change mitigation projects as well as some 800 energy projects in over 50 countries undertaken via UNDP's GEF-Small Grants Programme. About 400 UNDP energy projects are ongoing, with more than US\$200 million in core UNDP resources and co-financing from local partners.

## UNDP'S ENERGY PRIORITIES & APPROACHES

- Strengthen national policy frameworks by incorporating sustainable energy considerations in poverty reduction strategies, macroeconomic reform, energy sector reform, and sustainable development planning
- Promote rural energy services to support growth and equity
- Promote clean energy technology for sustainable development
- Support expanded developing country capacity to attract investment financing for sustainable energy

## OUTCOMES & IMPACTS

- Integration of energy-development linkages in poverty reduction strategies and sectoral policies of developing countries
- Increased availability of clean and affordable energy services in rural communities, including through pilot projects using low-carbon technologies
- Improved social and economic status of women through participation in rural energy programmes and policy planning
- Strengthened national capacity to adapt clean energy technologies to meet local conditions and needs
- Expanded involvement of energy entrepreneurs in sustainable energy business opportunities in developing countries
- Enhanced national capacity to set the rules and procedures for new sustainable energy financing options, such as the Clean Development Mechanism.



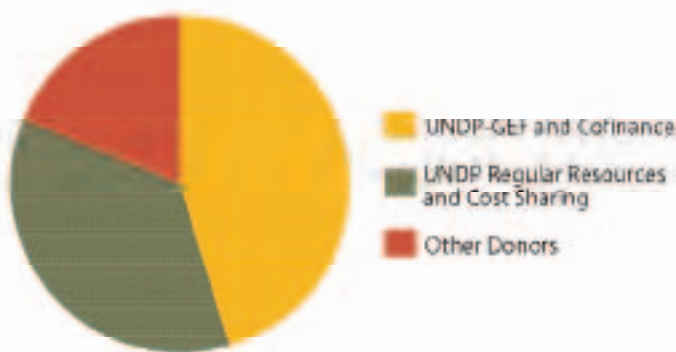


## UNDP SERVICE LINE: SUSTAINABLE LAND MANAGEMENT

Land degradation is one of the major causes of rural poverty, as well as one of its effects. This is particularly so in drylands, the arid and semi-arid regions that account for well over 40% of the Earth's potentially productive land. Drylands are home to 1 billion people, among the world's poorest and most marginalized. Much of the world's most seemingly intractable poverty can be found in drylands.

Governments typically marginalize drylands and direct investment to higher-productivity areas. Often geographically and politically isolated, people in drylands have to contend not only with a fragile, highly erodible natural resource base, but also with inadequate investment and the absence of key services, including health clinics, schools, communications and markets. While investment flows to "high-potential" regions, drylands are neglected until the next famine appears. The upshot is that development assistance for drylands has been skewed towards famine relief and emergency aid, with too little assistance made available to support long-term development and productivity. Though fragile and easily degraded when poorly managed, drylands can be productive and provide improved livelihoods for the people who live there, given sound management practices, adequate investment and a conducive policy environment. Since two thirds of Africa is desert or drylands, increasing food production in the region depends critically on improved methods of arid and semi-arid agriculture.

UNDP ONGOING PORTFOLIO OF SUSTAINABLE LAND MANAGEMENT IN MILLION US\$ AT THE COUNTRY LEVEL



Source: GEF and UNDP Financial Systems  
Other Donors: Donors' cooperation initiated through UNDP office

Lack of secure access and use rights is by far the key constraint to improved livelihoods for the majority of the rural population in drylands. Without secure rights, people mine the land for short-term benefit rather than in investing in good management for sustained development gains.

### UNDP'S DRYLANDS PRIORITIES & APPROACHES

- Encourage adoption of participatory governance systems for natural resources
- Advocate for inclusion of land tenure reform in ongoing policy debates
- Support land reform and land tenure initiatives
- Promote mainstreaming of drylands issues into national development planning frameworks
- Promote appropriate and innovative land management practices and sustainable livelihoods

### OUTCOMES & IMPACTS

- Improved institutional capacity to address desertification and land degradation
- Integration of land management programs and project into major planning frameworks, particularly poverty reduction strategies
- Strengthened national policy and planning frameworks that reflect the needs of the poor
- Adoption of participatory systems of local governance for natural resources management that benefit the poor of drylands
- Improved livelihood options for women and marginalized groups in drylands areas
- Strengthened capacity to respond to the effect of climate change, including reduced vulnerability of the poor to droughts, floods, and other climatic shocks
- Increased expenditures for research on drylands agriculture

UNDP's response to this situation has been to advocate for greater development emphasis on people living in drylands. In addition to the GEF Land Degradation programme resources, UNDP's Integrated Drylands Development Programme, advocates for more attention to areas where current productive capacity is low and poverty levels are high. Because of its political independence, UNDP is particularly well-suited to support land tenure reform efforts, which raise politically sensitive issues of national sovereignty amidst the need for transparent, participatory reform processes. UNDP manages a portfolio of ongoing drylands projects budgeted at some US\$243 million including resources made available by GEF.



## UNDP SERVICE LINE: CONSERVATION AND SUSTAINABLE USE OF BIODIVERSITY

The poor, especially in rural areas, depend on biodiversity—the full variety of life forms on Earth—for food, shelter, medicines and livelihoods. Biodiversity also provides the critical ecosystem services, including air and water purification, soil formation and conservation, disease control, and climatic regulation services, that underlie all human well-being and economic prosperity. Well over a third of the global economy is based on biological products and processes. Ecosystem services are a mainstay of poor communities and a major source of rural income and livelihoods.

Moreover, biodiversity provides resilience and options for change, especially important in these times of fast-paced economic and technological transformation. Such resilience is even more crucial for the poor than for the rich. Far from being a luxury the poor can do without, biodiversity is a vital insurance policy for the poor and often their welfare system of last resort.



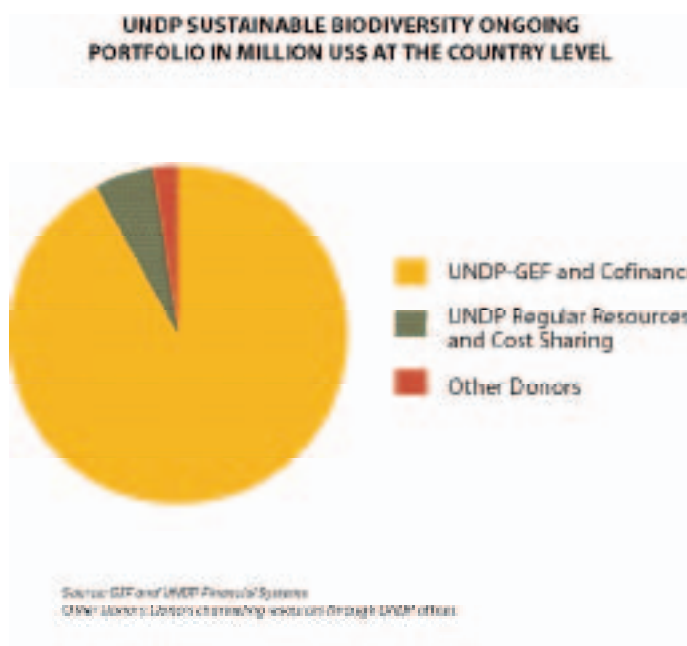
## UNDP's BIODIVERSITY PRIORITIES & APPROACHES

- Promote mainstreaming of biodiversity, ecosystem services, and protected areas into global and national policy frameworks, sectoral policies, and landscapes
- Support developing countries in protecting traditional knowledge and ensuring equitable sharing of biodiversity's benefits
- Encourage diffusion of knowledge about best practices in conservation and sustainable use of biodiversity
- Support community efforts, particularly in biodiversity-rich areas, to conserve biodiversity through sustainable livelihoods
- Advocate for parks and protected areas strategies that treat local people and communities as important partners and create opportunities for improved local livelihoods
- Promote emerging markets in ecosystem services that enable improved livelihoods and enhanced capital flows to poor communities in developing countries
- Support policy development and research for ecosystem-based approaches that meet core objectives for both agricultural development and biodiversity conservation

## OUTCOMES & IMPACTS

- Integration of biodiversity conservation, related impacts on ecosystem services, and economic valuation of biodiversity into national development planning and monitoring
- Adoption of national plans to conserve local biodiversity
- Creation of public-private partnerships for biodiversity conservation and sustainable use
- Mobilisation of necessary national resources for biodiversity conservation plans

Typically, the wealthy control access to biodiversity and ecosystem services. They consume more ecosystem services than the poor, and they can afford to purchase substitutes for services that degraded ecosystems no longer provide. For instance, the wealthy can purchase imported seafood to replace lost catches from depleted fisheries, while the poor enjoy no such luxury.

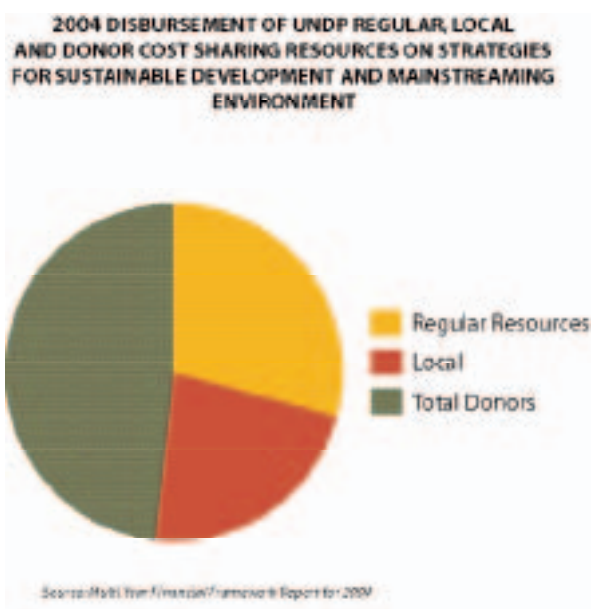


Through capacity development, knowledge management, policy advice and advocacy, UNDP helps more than 140 countries maintain and sustainably use their biodiversity resources. We support empowerment of host countries and communities to ensure equitable sharing of the benefits of biodiversity as well as their ability to determine the terms for access to genetic resources under their custodianship. UNDP also engages in strategic partnerships to provide cutting-edge knowledge related to biodiversity conservation and poverty reduction, including on such topics as ecoagricultural approaches, ecotourism, and the importance of biodiversity to human health. Central to UNDP's approach is identification of win-win options that simultaneously serve poverty reduction, sustainable livelihoods, and biodiversity conservation objectives. UNDP manages a portfolio of ongoing biodiversity projects budgeted at more than US\$2 billion mainly through its GEF and co-financing resources.



## UNDP SERVICE LINE: FRAMEWORKS AND STRATEGIES FOR SUSTAINABLE DEVELOPMENT

Achieving sustainable development requires deep structural change. To meet various development needs and challenges, countries can benefit from mainstreaming environmental considerations into core institutional thinking and decision-making. Such mainstreaming can help developing countries identify and capitalize on opportunities for simultaneous gains in improved environmental management and attainment of broader development goals. Unfortunately, in many countries development planning processes, perhaps most notably the poverty reduction strategy process, do not adequately incorporate environmental sustainability dimensions. Moreover, overlapping planning processes strain the capacities of developing-country institutions.



UNDP's response is to seek ways to improve convergence among processes that share common principles and approaches, such as national sustainable development strategies and national poverty reduction strategies. UNDP is currently supporting work on national sustainable development strategies in more than 60 countries and on poverty reduction strategy processes in an equivalent number. This work emphasizes country-based and country-owned systems for setting context-specific targets and monitoring of country progress towards environmental sustainability. Currently, UNDP manages a portfolio of projects with budgets amounting to more than US\$490 million.

### UNDP'S ENVIRONMENTAL MAINSTREAMING PRIORITIES AND APPROACHES

- Assist developing countries in mainstreaming environmental and natural resources management into poverty reduction strategies, national development frameworks, and other sector strategies
- Promote integration of economic, social, and environmental issues in national strategies for sustainable development
- Encourage setting of country- and context-specific targets and monitoring of country progress toward environmental sustainability (MDG7)
- Facilitate application of strategic and integrated impact assessment tools in the design of sustainable development policies and programmes

### OUTCOMES & IMPACTS

- Strengthened national and institutional capacity to use analytical tools to mainstream environmental and sustainable development dimensions in poverty reduction strategies and other development planning, policies, and programmes
- Full integration and mainstreaming of environmental management within national economic and social development frameworks
- Increased policy coherence through a participatory process of assessment and tradeoffs to balance environmental and other sectoral targets and goals
- Greater coordination and harmonization of donor inputs to national sustainable development processes
- Enhanced participation of civil society and the private sector in the creation and implementation of sustainable development and environmental management strategies and programmes

## UNDP SERVICE LINE: CHEMICALS MANAGEMENT

Chemicals represent an important aspect of economic development, affecting virtually all sectors of human activity. It is increasingly recognized, however, that poor management of chemicals damages human health and the environment, with serious impacts on the world's urban and rural poor and the most marginalized and vulnerable groups, particularly women and children.

UNDP assists countries in meeting the objectives of international agreements that target effective global chemicals management, specifically the Montreal Protocol on Substances that Deplete the Ozone Layer and the Stockholm Convention for the elimination of persistent organic pollutants (POPs). Working with public and private-sector partners, UNDP supports strategic planning for sustained phase-out of ozone-depleting substances (ODS) and POPs, including capacity development, technical and policy advice, and technology transfer. Total ongoing funding under this area service line amounts to more than US\$ 330 million with funds sourced from the Montreal Protocol's Multilateral Fund and the Global Environment Facility's (GEF) ODS/POPs programmes.



### UNDP'S CHEMICAL MANAGEMENT PRIORITIES AND APPROACHES

- Ensure compliance with the Montreal Protocol targets for phase-out of ODS (with funding approved under the Multilateral Fund)
- Support reduction and elimination of releases of POPs under the Stockholm Convention (with funding approved under the Global Environment Facility)
- Promote capacity development, including institutional strengthening and development of enabling activities to highlight good chemicals management practices
- Facilitate national dialogue and coordination among different actors in phase-out plans for ODS and POPs
- Provide technical assistance, training, and support for programmes that promote sustainable adoption of alternative substances and processes
- Promote transfer of best available technologies in support of national and sectoral ODS and POPs elimination and compliance programmes
- Design and implement programmes geared to minimize social and economic impact of phase-out processes, and encourage local trade, employment and other relevant economic activities.
- Promote reduction and prevention of chemical pollution of lakes, rivers, groundwater, coasts and oceans (with funding approved under the GEF)

### OUTCOMES & IMPACTS

- Enhancing coordinated action on chemicals management at the global level
- Mainstreaming integrated chemicals management strategies within national cross-sectoral development planning
- Increased technical and economic confidence in alternative chemical substances and processes

## UNDP CROSS-CUTTING ISSUES:

### Climate Change and Adaptation

There is broad-based agreement within the scientific community that the Earth's climate is changing due to human activities that produce emissions of greenhouse gases, principally carbon dioxide. The impacts of climate change are likely to weigh most heavily on people who depend on natural systems for their livelihoods, especially the poor and vulnerable in developing countries. Moreover, many sectors providing basic livelihoods for the poor in developing countries often cannot withstand even today's climate variability, with extreme weather events in some instances already setting back the development process for decades.

Improving the ability and resilience of people in less developed countries to cope with climate change over the coming decades will be an important factor in determining whether the MDGs are reached. UNDP's experience suggests that the best way to address climate change impacts on the poor is by integrating effective adaptation measure into sustainable development and poverty reduction strategies. This will require a significant increase in the resources made available to improve knowledge and understanding of adaptation options and needs and to ensure the long-term effectiveness of investments in poverty eradication and sustainable development. Market-based mechanisms, such as the Clean Development Mechanism and the other carbon finance instruments, have the potential to play a key role in creating and transferring appropriate technologies and attracting investment capital to developing countries. However, it is crucial that these mechanisms deliver a real sustainable development dividend to host countries. Including projects approved under the Global Environment Facility, UNDP supports over 400 large and 1,000 small-scale project delivering climate change benefits in dozens of countries.

### UNDP'S CLIMATE CHANGE PRIORITIES AND APPROACHES

- Development of integrated policies that build efficient national economies while minimizing greenhouse gas emissions
- Facilitating the transfer of proven technologies and win-win opportunities, including renewable energy and energy efficiency
- Integrating climate change considerations into sectoral decision-making, particularly agriculture, water and land use, energy, and health
- Undertaking vulnerability and adaptation assessments to help identify appropriate response measures
- Assisting in the identification and management of climate risks, especially in relation to natural disaster management
- Assisting about 100 countries in preparing National Communications under international climate change conventions
- Providing policy and technical assistance to address the needs of the least developed countries in relation to international climate change agreements





# INTRODUCTION AND OVERVIEW

## Poverty and Environment

UNDP has made the poverty-environment nexus the core focus of its Energy and Environment Practice area. The Poverty and Environment Initiative (PEI) is a cross-cutting global programme that helps countries develop their capacity to integrate the environmental concerns of poor and vulnerable groups into national policy and planning frameworks for poverty reduction and sustainable, pro-poor growth. MDG-based poverty reduction strategies provide a critical entry-point for tackling this challenge and placing poverty-environment issues at the centre of a country's national development agenda.

UNDP currently manages integrated poverty-environment programmes in six countries—Kenya, Rwanda, Tanzania, Cambodia, Vietnam, and Nicaragua. Regional learning networks on poverty-environment mainstreaming are under development in Africa and Asia. UNDP and the United Nations Environment Programme (UNEP) recently formed a global partnership on poverty and environment to carry out joint activities at country, regional and global levels, including a joint publication series and a web-based portal to support knowledge sharing on practical approaches to more effectively link poverty reduction with environmental management.



### PEI AREAS OF FOCUS

- Improving the knowledge base on poverty-environment linkages and effective community-level responses, and assessing institutional capacity needs for linking poverty reduction and environmental management
- Facilitating stakeholder dialogue, coalition-building and action on policy options for mainstreaming environment in poverty reduction policy, planning and implementation frameworks, and to address priority capacity development needs
- Developing appropriate poverty-environment indicators for measuring how environmental conditions impact the livelihoods, health and vulnerability of the poor and to strengthen capacity in monitoring and assessing policy responses and outcomes within the framework of national poverty monitoring systems
- Strengthening national capacity to manage partnership-based approaches for mainstreaming poverty-environment issues

## Environmental Governance

UNDP's Environmental Governance Initiative is designed to combine the strengths of its Energy and Environment Practice with those of its Democratic Governance Practice to generate policy advice and advocacy tools that will improve programme capacity to protect the environment and promote equitable access of the poor to energy and natural resources.

This cross-cutting initiative is built on the recognition that, since many dramatic improvements in governmental transparency and accountability have been pioneered in the area of environmental decision-making, energy and environmental programming can provide an invaluable entry point for achieving UNDP's overall objectives for democratic governance by promoting access to information, participation, and justice.

## Community-Based Initiatives

UNDP's Energy and Environment Practice encompasses many, diverse community-based initiatives. Most deal with specific issue areas, such as water, energy, or biodiversity. Examples described previously in this chapter are the Equator Initiative and the Global Village Energy Partnership—two community-based initiatives addressing poverty reduction through biodiversity conservation and access to modern energy services, respectively. Other UNDP community-based initiatives include:

- The Community Water Initiative, a small grants programme for community-based water supply, sanitation, and integrated water resources management to improve the livelihoods of poor people
- The Liquefied Petroleum Gas Rural Energy Challenge, a public-private partnership between UNDP and the World LP Gas Association to provide rural communities with energy services for increased productive capacity and vastly improved living conditions
- Community Action 2015, a strategic cross-cutting platform to develop local-level capacity to meet the MDGs.

The GEF Small Grants Programme (SGP) launched in 1992 - rooted in the belief that global environmental problems can best be addressed if local people are involved and direct community benefits and ownership are generated - has funded close to 6,000 projects of which over 3,000 address biodiversity.



I hope that this volume of “The Sustainable Difference” will facilitate information exchange and policy dialogue on country-level environmental sustainability initiatives. We must address, both nationally and globally, the many direct and indirect links between security, poverty and the environment. The 2005 World summit is an unprecedented opportunity to renew and strengthen our commitments to make this happen. UNDP stands ready to help partner countries in scaling up ongoing efforts and embarking on new initiatives consistent with the strategy for poverty reduction and reaching the MDGs.

Poverty will only be conquered through policies and other efforts that provide secure and equitable access to energy, water, land, and a healthy environment with functioning ecological services. These are keys to sustainable livelihoods and environmentally sound paths to poverty reduction that can make a “Sustainable Difference” in the great quest to achieve the Millennium Development Goals.



# AFRICA

Angola	Liberia
Benin	Madagascar
Botswana	Malawi
Burkina Faso	Mali
Burundi	Mauritania
Cameroon	Mauritius
Cape Verde	Mozambique
Central African Republic	Namibia
Chad	Niger
Comoros	Nigeria
Congo, Democratic Republic of	Rwanda
Congo, Republic of	Sao Tomé & Príncipe
Côte d'Ivoire	Senegal
Eritrea	Seychelles
Ethiopia	Sierra Leone
Gabon	South Africa
Gambia	Swaziland
Ghana	Tanzania
Guinea	Togo
Guinea-Bissau	Uganda
Kenya	Zambia
Lesotho	Zimbabwe



## REGIONAL SPOTLIGHTS

**Protecting Southern Africa's Vital Marine Resources<sup>1</sup>**

Sweeping along the coast of south-western Africa, the Benguela Current large marine ecosystem stretches from the Cape of Good Hope northwards into Angolan waters, encompassing the full extent of Namibia's marine environment. Like the Humboldt, California and Canary Current systems, water rising from the depths of the ocean – or upwelling – along the Benguela provides a renewed source of nutrients which has made it an important centre of marine biodiversity and global marine food production.

A study of the Benguela Current ecosystem, however, highlighted several looming transboundary problems. The main causes of these problems were related to poor legal frameworks, inadequate enforcement of existing regulations, a lack of reliable financing and support mechanisms and insufficient public involvement.

Working with ministers from Angola, Namibia and South Africa, in 2002 UNDP/GEF began a five-year, \$15 million Integrated Management of the Benguela Current Large Marine Ecosystem project to resolve these management issues and address the unsustainable use of this large marine ecosystem. The three countries prepared and endorsed a Strategic Action Programme outlining their commitments to implementing a range of management and sustainable use guidelines. This included joint surveys and assessments of shared fish stocks, standardized management approaches, adherence to established codes of conduct for fishing, monitoring of ecosystem health and algal blooms, and capacity development for key staff and institutions.

The cooperative relationship established by the project was critical to convincing the three countries to contribute more than \$18 million towards implementation of the Strategic Action Programme, including staff, laboratories, equipment and the use of research vessels. One of the main outputs of the Programme will be the formation of a new Benguela Current Commission, an institution that will deal with conflict resolution, transboundary marine resource management, and regulatory and environmental protection issues in the Benguela Current large marine ecosystem. The Commission will draw on inputs from several ministries in each partner country including foreign affairs, finance, fisheries, minerals and energy, environment and tourism.

**Africa Energy for Poverty Reduction Programme<sup>2</sup>**

Energy services are indispensable for human survival and development. They play a critical role across the whole spectrum of development activities, and are a powerful engine for social and economic growth. The lack of available modern energy services significantly limits social and economic human endeavours and correlates closely with many sustainable development indicators. Limited access to energy and the services that it provides is a problem that has a disproportionate effect on the poor, especially poor women in rural areas.

The present regional rural energy programme, "Energy for Poverty Reduction in Africa: Energising Rural Development using Multifunctional Platforms", has a total budget of about 4 million and is targeted to catalyse a wave of national actions that will fill the gaps in policy and institutional responses as identified in the preceding section. The programme builds on the successful multifunctional platform project energy project in Mali, thus launching additional countries in West Africa into this project. This programme creates a networking tool for exchanges of experience, knowledge and best practice across the region on effective planning, and management and expansion of decentralised rural energy systems/enterprises. National, regional and local poverty reduction policies and strategies will mainstream rural energy poverty issues.

Currently, this project is supporting the Secretariat of the Economic Commission for West Africa (ECOWAS) in their efforts for developing a White Paper on increasing energy access in the West Africa region. UNDP through the regional programme has been successful in helping ECOWAS mobilise support from partners, such as EU and France, and currently at the forefront in helping finalise the White Paper for endorsement by the Heads of States in ECOWAS countries towards the end of 2005.

### New Approaches to Reducing Biodiversity Loss at Cross-Border Sites in East Africa<sup>3</sup>

East Africa is a region of high global priority for biodiversity conservation. East African governments recognize this and have therefore designated a significant proportion of their land as parks and other types of protected areas. Despite this fact, the region is losing a significant extent of its natural biodiversity as a result of population pressures and associated exploitation of land resources.

The East African Cross-Border Biodiversity project is a regional initiative developed through the collaborative efforts of three countries: Kenya, Uganda and the United Republic of Tanzania. The project addresses the root causes of biodiversity loss through an integrated conservation process that reconciles the socio-economic interests of local stakeholders with the sustainable use of biodiversity. East African governments do not have the economic or institutional capacity to reach all remote villages, therefore the engagement of a wide range of civil society organizations was the implementation model pioneered by this project. At the regional level, two international NGOs are reviewing transboundary policy issues. IUCN East Africa developed forest valuation methodologies that gave communities financial incentives to support conservation.

The project empowered community based organizations to participate in forest planning and natural resource management processes. Several local NGOs were already working with communities. One NGO, VI-Uganda, focused on training selected community-based organizations on skills needed to improve banana cultivation, make compost manure, protect the soil, adopt the practices of zero grazing and agroforestry, and produce crafts. The NGO also helped selected schools to set up tree nurseries and teach schoolchildren to plant trees. These activities were collectively identified by all the stakeholders as important for the effective conservation of the Sango Bay Forest reserve and for reducing pressure on the forests. They have also resulted in a spirit of community ownership and an appreciation of how forest resources can fuel economic growth.

# BIODIVERSITY

### Saving Livelihoods and Rangelands in Arid Africa<sup>4</sup>

Traditionally, land-management practices have enabled the people of the rangelands in the arid zone of Africa to maintain a secure livelihood while regulating the use of resources. The breakdown of these traditional systems due to increased population pressures is resulting in overwhelming land degradation, overgrazing and exploitation of natural resources.

The Management of Indigenous Vegetation for the Rehabilitation of Degraded Rangelands in the Arid Zone of Africa project – an \$8.6 million effort supported by the GEF and jointly implemented by UNDP and UNEP covering Botswana, Kenya and Mali – attempts to tackle these issues while improving ecosystem health and alleviating poverty. The project focuses on improving indigenous management systems as opposed to introducing new technologies that may not be acceptable or affordable in the long run. It also involves community action plans to identify the traditional management systems, highlight their strengths and weaknesses, and determine how they can effectively address the current situation. For example, in Botswana one result of the community action plans was the decision to install drift fences separating livestock grazing from arable regions – a priority concern of the local community.

The project's approach to communal rangeland management has so impressed land-use planners in the national governments and district councils that they have asked for assistance in developing similar management systems for other areas of these countries. Overall, the project has highlighted the importance of supporting representative community institutions in overseeing the management of rangeland resources. It was flexible enough to accommodate emerging community priorities, while still addressing key project goals. This approach was able to garner the broad local support so critical to long-term success.

# LAND

<sup>3</sup>Protecting International Waters Sustaining Livelihoods – “Protecting southern Africa’s vital marine resources” p.7 [http://www.undp.org/gef/undp-gef\\_publications/publications/intlwaters\\_brochure2004.pdf](http://www.undp.org/gef/undp-gef_publications/publications/intlwaters_brochure2004.pdf);  
<sup>4</sup>Energy for Poverty Reduction in Africa: Energising Rural Development using Multifunctional Platforms” UNDP, January 2003; “Partners for Change: Experiences from UNDP’s Work with Civil Society Organizations through the Global Environment Facility – Case study 4.4 – “Getting at the Root of Biodiversity Loss” [http://www.undp.org/gef/undp-gef\\_publications/publications/civilsociety\\_english.pdf](http://www.undp.org/gef/undp-gef_publications/publications/civilsociety_english.pdf);  
<sup>5</sup>Reclaiming the Land Sustaining Livelihoods, Saving livelihoods and rangelands in Botswana, pg.8 [http://www.undp.org/gef/undp-gef\\_publications/publications/landdeg\\_brochure2004.pdf](http://www.undp.org/gef/undp-gef_publications/publications/landdeg_brochure2004.pdf)



## SPOTLIGHT

## Environmental Vision Signals Hope¹

Thirty years of civil war have wreaked havoc with Angola's ecosystems. Enormous pressure from heavily concentrated human populations in the coastal strip was a direct by-product of the conflict. Subsequent over-exploitation of soil and over-grazing has led to erosion and desertification. International demand for rare tropical wood species and domestic use of fuelwood furthered significant devastation of the tropical rainforest. The disappearance of a national symbol, the Giant Sable antelope, was a further indication of the extent of the environmental destruction.

The Angola National Biodiversity Strategy and Action Plan (NBSAP) was issued in 2004 with GEF support of US\$ 382,000 and additional co-financing through the Norwegian Development Agency. The NBSAP was developed as a result of the project, Support for Capacity Building for Improved Environmental Planning and Biological Diversity Conservation and addresses major shortcomings of environmental management in the country. In addition, it will enhance the capacity needs of the Ministry of Urbanism and Environment, overseeing the completion of the National Environmental Action Plan, and combating poverty. The project has 4 strategic components, including: capacity building in planning and environmental management; increasing environmental awareness, education and social mobilization; conservation of biological diversity; multilateral environmental agreements and transboundary initiatives.

Results of the action plan have been positive. Local communities were encouraged to participate in the strategy and community members were trained in environmental preservation. A training seminar was held in early 2005 to familiarize relevant stakeholders with the project and the first National Workshop was held. Further, UNDP provided technical and financial support for the Giant Sable Expedition. The rare Giant Sable is endemic to Angola and was rediscovered in 2005, miraculously surviving almost 30 years of war. Though not a license for further destruction, the sighting illustrates the durability of the environment and serves as a reminder that environmental preservation is key to maintaining biodiversity long-term.

## BIODIVERSITY

## QUICK FACTS

## CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$373,000
<b>Total UNDP and Co-Finance:</b>	\$1,140,000
<b>Total:</b>	\$1,513,000



While Angola is extremely rich in natural resources and biological diversity, armed conflict accompanied by increased levels of poverty has led to grave effects on the natural environment and the quality of human life. The current activities supported by UNDP aim to help the government reverse this trend by strengthening national capacity to properly protect the environment and manage natural biological resources in a sustainable way and as a means to support the overall development planning process and an effective contribution to the national poverty reduction efforts.<sup>2</sup> "The environment is a cross cutting issue in UNDP Angola. Initiatives in this area provide for an interagency approach between environmental NGOs and civil society under the Ministry of Urban Affairs and Environment."



**Pierre-Francois Pirlot, Resident Representative**

## PORTFOLIO

### FSSD\*

UNDP is supporting the Government of Angola in strengthening national capacity to protect the environment and manage natural biological resources. The GEF-funded development of a National Biodiversity Strategy and Action Plan, lasting until 2006, will play a significant role in ensuring proper conservation efforts.

### WATER

With funding from GEF, UNDP assists countries with shared waters to improve their watershed and coastal zone management practices in support of sustainable development. UNDP is supporting two GEF-funded regional projects concerning shared waters with Angola's neighbors. The Benguela Current Large Marine Ecosystem and the Okavango River Basin both contribute significantly to shared resource management and the sponsorship of activities that will maintain the ecological integrity of both marine ecosystems.

### CHEMICALS

Angola is participating in a regional methyl bromide (Me. Br.) phase-out project, implemented by UNDP for low volume consumers in Africa. This project provides policy strengthening assistance to prevent the introduction of Me. Br. use in the country.



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### PARTNERS

**Some of our Partners working with UNDP and the Government in Angola**

NORAD  
 Chevron Texaco  
 UNEP

<sup>1</sup>Capacity Building for Environmental Planning and Biodiversity Conservation in Angola Final Evaluation Report, available at: [http://mirror.undp.org/angola/LinkRtf/ang02\\_005.pdf](http://mirror.undp.org/angola/LinkRtf/ang02_005.pdf);  
<sup>2</sup><http://mirror.undp.org/angola/EnergyEnvironnement.htm>; \*Frameworks and Strategies for Sustainable Development





### Progress Towards Environmental Sustainability

The contamination of water, noted as one of Benin's major environmental challenges, is highlighted as one of the main causes of diarrhea and gastroenteritis and therefore one of the main causes of death in Benin, especially among children. Acute respiratory infection, with 15.4% of reported pathology in 1999, ranks second as reason for doctor's visits and third for hospitalization. Similarly, the high incidence of respiratory and infectious diseases linked to air pollution has led to a rate of 12.6% in Cotonou alone.

With regards to the global MDG Target 10 of halving the proportion of the population without access to safe drinking water by 2015, Benin has set distinct country-specific targets that take into consideration the situation of its water resource management. For instance, for the period 2003-2005, Benin plans to provide 878,500 persons living in rural areas with access to water points, which would require 1800 safe drinking water points to be provided and 1200 old facilities to be rehabilitated during the same period.

Despite the absence of national policy on the matter of slum dwellers in Benin as well as insufficient available data on slum dwellers and housing conditions, certain observations can still be made. Anarchic constructions, high cost of infrastructure in cities, and general failure to recognize the link between the absence of decent lodging and poverty all leave the question of habitable zones at large. The poor living conditions of slum dwellers may also be explained by Beninese traditional, sociological and cultural practices that affect the livelihoods of a significant proportion of the population; there exists a strong desire to live in a home of one's own despite generally low incomes and available resources, which prompt many Beninese to build houses in unhealthy locations.<sup>1</sup>

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$3,575,000
<b>Total UNDP and Co-Finance:</b>	\$859,178
<b>Total MPU and Bilateral:</b>	\$143,027
<b>Total:</b>	\$4,577,205

**Cumulative Total ODS Phased-Out:** 27.3 ODP tonnes



## SPOTLIGHT

### Capacity Needs Assessment Helps Develop a Locally-Owned National Biodiversity Strategy<sup>2</sup>

Benin ratified the Convention on Biological Diversity (CBD) in 1994. However, the country's legal provisions have not kept up-to-date with its plans to decentralize administration to give grassroots communities autonomous management of natural resources and biodiversity. In addition, previous experience with biodiversity management revealed difficulties in adapting modern methods and technologies to the social and cultural values of the local community. Furthermore, knowledge of the country's biological potential and taxonomy has been insufficient, limiting monitoring and protection of endangered species.

In 2001, to overcome these difficulties and enable Benin to meet its obligation under the CBD, with US\$ 233,820 financing from the GEF, UNDP launched a capacity needs assessment project to assist the Ministry of Environment, Habitat and Urbanism to develop a National Biodiversity Strategy and Action Plan (BSAP). The NBSAP builds on and reinforces other existing national strategies and plans, such as the National Environmental Action Plan.

The project is currently assessing resource requirements – human, financial and technical – for the formulation and adoption of new legislation for improved local and national management of biodiversity. Among the project activities are: assessing capacity-building needs for the monitoring of endangered species, identifying resources, strategies and skills needed in the area of taxonomy, assessing needs for the thematic analysis and translation of local knowledge, and holding national workshops for consensus-building on the necessity of utilizing indigenous knowledge favourable to biodiversity.

To-date, the project has enabled Benin to develop in situ and ex situ measures for conservation, harnessing indigenous knowledge, developing mechanisms for sharing benefits, and strengthening the country's participation in the CBD clearing house mechanism.

The proportion of the Beninese population demonstrating the greatest need for access to clean energy is the most heavily affected by environmental degradation. UNDP Benin supports the integration of national capacities for ecologically sustainable development and the promotion of global best practices.<sup>3</sup> All UNDP Benin's energy projects are integrated in the country's poverty eradication programmes, as sustainable livelihood cannot be achieved without a sustainable energy policy.

**Moustapha Soumare, Resident Representative**

## PORTFOLIO

### FSSD\*

UNDP is supporting the Government of Benin in strengthening capacity for natural resources management, through the Programme for National Environmental Management. The programme has two major objectives, decentralisation of natural resource management, and strengthening national capacity to implement the National Action Plan against Desertification, particularly, locally-elected officials.

### ENERGY

In terms of Climate Change, UNDP has provided assistance to Benin, with funding from the GEF, to prepare its First National Communication to the UN Framework Convention on Climate Change.

### BIODIVERSITY

UNDP has promoted the conservation and sustainable use of Benin's biodiversity with GEF-funding to support the preparation of a National Biodiversity Strategy and Action Plan, enabling it to fulfil its commitments to the Convention on Biological Diversity, and provided an assessment of the needs and capacity constraints to biodiversity protection in the country.

### CHEMICALS

Benin is participating in a regional halon management project for 6 French-speaking African countries that will allow all participants to effectively manage their critical uses of halons, an ODS used for fire protection purposes. Participation in this regional project ensures effective training in proper halon bank management at the national level, and will establish a regional banked halon system through which future critical halon needs will be met.



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### PARTNERS

**Some of our Partners working with UNDP and the Government in Benin**

CBDD  
Government of Venezuela

<sup>3</sup>Benin MDGR 2003 [http://www.undg.org/documents/3042-Benin\\_MDG\\_Report\\_-\\_Objectif\\_7\\_Cible\\_9.pdf](http://www.undg.org/documents/3042-Benin_MDG_Report_-_Objectif_7_Cible_9.pdf) and [http://www.undg.org/documents/3042-Benin\\_MDG\\_Report\\_-\\_Objectif\\_7\\_Cible\\_10\\_11.pdf](http://www.undg.org/documents/3042-Benin_MDG_Report_-_Objectif_7_Cible_10_11.pdf); <sup>4</sup>UNDP/GEF Capacity Needs Assessment for the Implementation of the Benin's National Biodiversity Strategy and Action Plan, 2nd National Report; <sup>5</sup><http://www.undp.org.bj/>; <sup>6</sup>Frameworks and Strategies for Sustainable Development



### Progress Towards Environmental Sustainability

Botswana's stock of natural resources includes land, minerals, water, flora and fauna, and is the backbone of the economy and the livelihoods of its inhabitants. The management of Botswana's natural resources is guided by national environmental legislation and strategies, and multilateral environmental agreements (MEAs), seven of them signed between 1997 and 2003 alone.

Within the framework of the sustainable use of environmental resources, the most important environmental issues are:

(a) land degradation and the related issues of desertification, soil erosion and biodiversity loss; (b) conflicting land uses; (c) climate change; (d) access to water for household, livestock, arable and industrial use; (e) water scarcities; (f) fuel wood depletion and lack of alternative forms of energy; and (g) the protection of cultural and natural heritages.

Although water is a scarce resource in Botswana, the country is firmly on course to ensuring universal access to safe drinking water. The proportion of the population with sustainable access to safe drinking water has increased, rising from 77% of the population in 1996 to 97.7% by the year 2000.

Pressure on land resources comes from a variety of sources, including economic expansion, population growth, migration, livestock populations, animal populations, and climate change. Economic activities, industry, and farming not only consume land resources but also pollute them. Population growth has led to the annexation of more virgin land to meet human needs such as shelter, energy

and water, and the generation of higher volumes of waste. In an effort to remedy this, the Government has opted for integrated land use planning to manage land use conflicts that are fueled by expansion of human settlements and economic activity into new territories.<sup>1</sup>

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$11,227,014
<b>Total UNDP and Co-Finance:</b>	\$4,839,716
<b>Total:</b>	\$16,066,730



## SPOTLIGHT

### Community-based Biodiversity, Land Management and Rehabilitation<sup>2</sup>

Ecologically, Botswana appears to be a paradox: endowed with a multitude of wildlife species, including elephants, giraffes, kudus, lions and hippopotami, it is also a land of deserts and encroaching sand dunes. Traditionally, land-management practices have enabled the people of Botswana to maintain a secure livelihood while regulating the use of rangeland resources. The breakdown of these traditional systems due to increased population pressures is resulting in overwhelming land degradation, overgrazing and exploitation of natural resources.

In a GEF-supported regional biodiversity project jointly implemented by UNDP and UNEP and a grant of \$8.6 million, the Management of Indigenous Vegetation for the Rehabilitation of Degraded Rangelands in the Arid Zone of Africa project is both ambitious and far-reaching, linking communities and government in promoting long-term land management and wildlife preservation in Botswana, Kenya and Mali.

Through the establishment of Community Resource Management Trusts, local communities make and implement management decisions affecting their rangelands. The make-up of these trusts includes men and women, rich and poor alike, reflecting the various needs and promoting equality among tribes. The main focus of the trusts is to improve existing, indigenous management systems that respect traditional, communal values. The development of community action plans and the involvement of technical advisers on behalf of the Government ensure that values are maintained while simultaneously fostering sustainable land-use, wildlife preservation and income generation.

In all three countries, environmental management committees have been established at the local level to link conservation and development priorities. In Botswana, the project's success has led the national government to request assistance in expanding the rangeland management systems beyond the pilot sites and in drafting new national policies on community-based land management.

UNDP Botswana's objective is to promote innovative, creative conservation strategies and actions to protect the environment while contributing to the eradication of poverty in partnership with all levels of government, civil society and the private sector. Also, UNDP promotes responsible tourism for the benefit of all its communities.<sup>3</sup> "UNDP's focus in environment is on capacity to manage. It is UNDP's objective to help countries adopt integrated approaches that focus on managing natural resources to improve the livelihoods of people."



**Bjorn Foerde, Resident Representative**

## PORTFOLIO

### FSSD\*

A combination of environmental legislation, environment support programmes and partnerships aid Botswana's efforts to strengthen governance, harmonise existing and overlapping environmental laws, and develop a national Environmental Information Management System. Significant funding contributions come from UNDP, the Government of Botswana, GEF and UNEP.

### WATER

In the field of transboundary waters management, UNDP is supporting Botswana in a regional project, funded by GEF, to assist in environmental protection and sustainable management of the Okavango River Basin, also shared by Angola. The basin is one of the least impacted in Africa, and the project focuses on strengthening the countries' capacity to jointly manage the basin's water resources.

### ENERGY

UNDP is supporting Botswana to increase access to sustainable energy and mitigate climate change. For example, two GEF-funded projects are contributing to reducing GHG and CO<sup>2</sup> emissions through introducing renewable energy technologies to provide electricity in rural areas, and promoting non-motorised transportation in the capital Gaborone.

### LAND

The Indigenous Vegetation Project (IVP) is a regional pilot project for biodiversity conservation and dryland ecosystem restoration in the arid and semi-arid zones, including Kenya and Mali. The project combines community-based indigenous knowledge, the findings of scientific research and past practical experience to rehabilitate degraded ecosystems and conserve biodiversity by developing sustainable natural resource management systems. In addition, a GEF-funded project seeks to reduce land degradation by developing the capacity to guide and reinforce coordination among the Rio Conventions and complement existing policies.

### BIODIVERSITY

In support of the protection and sustainable management of Botswana's biodiversity, UNDP is implementing a GEF-funded regional project, the Southern Africa Biodiversity Support Programme (SABSP). The programme promotes the conservation and sustainable use of biodiversity through interstate cooperation and information exchange in the southern African community.

### CHEMICALS

In Botswana, the PCB National Inventories project is aimed at preparation of national inventories on Polychlorinated Bi-Phenyls (PCBs) and PCB-containing equipment as part of the implementation of the Stockholm Convention on Persistent Organic Pollutants. The project enhances national capacities for the environmentally sound management of PCBs through the development of regionally harmonized national inventories.

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### PARTNERS

**Some of our Partners working with UNDP and the Government in Botswana**

UNEP

<sup>3</sup>Botswana MDGR 2004 [http://www.undg.org/documents/5308-Botswana\\_Millennium\\_Development\\_Goals\\_Status\\_Report\\_2004\\_-\\_Botswana\\_MDG\\_Report\\_2004.pdf](http://www.undg.org/documents/5308-Botswana_Millennium_Development_Goals_Status_Report_2004_-_Botswana_MDG_Report_2004.pdf); \*UNDP-GEF, 'Reclaiming the Land, Sustaining Livelihoods', 2004; [http://www.undp.org/gef/undp-gef\\_publications/publications/landdeg\\_brochure2004.pdf](http://www.undp.org/gef/undp-gef_publications/publications/landdeg_brochure2004.pdf); <http://www.unbotswana.org.bw/undp/environment.html>;  
 \*Frameworks and Strategies for Sustainable Development



## BURKINA FASO



## Progress Towards Environmental Sustainability

Despite increased attention given to Burkina Faso's environmental problems, the loss of natural resources is far from being reversed. The Government aims to adopt economic policies that will reduce poverty, which would in turn relieve some of the stress exerted on certain natural resources that the poor rely on for their needs. Burkina Faso also aims to harmonize the goals and targets outlined in its different programmes, and especially with its National Sustainable Development Strategy, in order to contribute more efficiently to environmental sustainability efforts.

Despite some efforts, only 46% of urban households had access to electricity in 2003, compared to a slightly lower proportion of 34% in 1998. With regards to hygiene and sanitation, the outlook is even worse, especially in rural areas, where there is a resulting higher rate of mortality. The percentage of households with latrines in Burkina Faso was 33.3% in 2003, compared to 27.8% in 1998. This low coverage indicates that much still needs to be done in order for Burkina Faso to reach its targets for environmental sustainability.

On the other hand, there have been positive trends in Burkina Faso's efforts to fulfill global Target 10 of MDG 7 – halving the proportion of the population without access to safe drinking water. In 1990, 60% of the Burkinabé did not have access to safe drinking water, whereas in 2003, this rate dropped to 31%. If progress continues at this pace, the proportion will decrease to 26.5% in 2005 and 4.2% in 2015, which would mean that 95.8% of the population will have access to safe drinking water in 2015, given that there

are no sudden and drastic economic and environmental changes throughout this period. These encouraging trends are in part a result of aid contributed by development partners and in particular of the implementation of certain programmes designed to address the drinking water needs of the population.<sup>1</sup>

## QUICK FACTS

## CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$4,488,209
<b>Total UNDP and Co-Finance:</b>	\$26,400,000
<b>Total MPU and Bilateral:</b>	\$148,600
<b>Total:</b>	\$31,036,809

**Cumulative Total ODS Phased-Out:** 3.0 ODP tonnes

## SPOTLIGHT

Decentralized Sanitation Programme<sup>2</sup>

Water, sanitation and hygiene are vital components of sustainable development and the alleviation of poverty. Diarrheal diseases are still a leading cause of mortality and morbidity in children under five in Africa – approximately 800,000 African children die every year from diarrhea and dehydration. Hygiene improvement on a huge scale is urgently needed, to reduce this burden of disease and to maximise the health benefits of water and sanitation interventions.

A UNDP project is working to support municipal initiatives to implement pro-poor environmental sanitation programmes in selected towns in Burkina Faso. A project coordination unit has been set up with the financial support of UNDP of US\$ 200,000 under the leadership of the Ministry of Territorial Administration and Decentralisation. UN Volunteers have been recruited to assist the project's central coordination unit and each of the six decentralised coordination units. These volunteers are the Water Sanitation Programme Africa (WSP-AF) focal points for activity design, implementation, and supervision. The project will assist six selected towns with the development of a pro-poor strategy to improve living and environmental conditions. The six urban centres have 1.66 million inhabitants representing over 65% of the urban population.

Projects include training of local teams, development of an operational manual and guidelines, establishment of Municipal Action Plans and support to community-driven development programmes. Additionally, the efforts in Burkina Faso team up with WSP-AF to assist local authorities develop a strategy to achieve the MDG target of improving access to safe drinking water. Projects include fundable micro-projects to improve living and environmental conditions in poor settlements.

WATER

"UNDP is very active in Burkina Faso on energy and environment issues. UNDP has demonstrated to be the lead agency in tackling environmental concerns amongst the partners of the Government. Thanks to the coordination framework, UNDP has been successful in working with the Government to include environmental considerations in the PRSP. Otherwise, environment would have remained a marginal development issue and not one of the national priorities."

**Georg Charpentier, Resident Representative**

## PORTFOLIO

### FSSD\*

UNDP is assisting the Government to incorporate environmental considerations into national planning. For example, UNDP is providing funding to development national capacity for environmental management, and a framework for implementing environmental policy with economic policy. The framework also looks to identify areas that require strengthened management efforts for sustainable development.

### ENERGY

UNDP is supporting access to energy services in Burkina Faso. From 2005-2009, Burkina Faso's rural centres are embracing the multifunctional platform in collaboration with the World Bank. This inventive idea fights poverty by promoting income-generating activities and substantially reducing women and girls' physical labour costs. An additional project supporting energy sector reform includes pilot programmes in local government planning and capacity-building. In terms of climate change, GEF is funding a number of projects to assist the government, including a self-evaluation project which enables Burkina Faso to develop an institutional framework and increase national awareness, while a second initiative focuses on reinforcing capacity of public and private institutions.

### BIODIVERSITY

Burkina Faso's 2005 National Biodiversity Strategy illustrates necessary actions for conserving ecosystems and highlights local awareness as key to achieving long-term environmental preservation. Funding for the development of this strategy was provided by GEF. Burkina Faso is also working to strengthen buffer zones between national parks and agricultural land to prevent potential illegal encroachment on protected areas. Two forestry projects and one wild fauna now closing had significant impacts, eventually leading to the Biodiversity Strategy and buffer protection. Funding came from GEF, DDC and UNDP resources and spanned nearly 20 years.

### CHEMICALS

UNDP is assisting Burkina Faso to enhance its capacity in sound management of chemicals through implementation of two projects that contribute towards compliance with commitments to the Montreal Protocol. These projects, funded by the Protocol's Multilateral Fund, aim to establish an incentive programme to encourage refrigeration sector end-users to replace or permanently retrofit their existing ODS-based equipment. In addition, with GEF funding, UNDP is supporting Burkina Faso to prepare the National Implementation Plan on Persistent Organic Pollutants (POPs). Such projects are establishing the foundation for Burkina Faso's future efforts to comply with commitments to the Stockholm Convention on POPs.



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### PARTNERS

#### Some of our Partners working with UNDP and the Government in Burkina Faso

European Union	
Government of The Netherlands	
Government of France	Government of Denmark
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Government of Japan	Shell
Government of Luxembourg	Aarhus Convention
Government of Germany	



### Progress Towards Environmental Sustainability

Major environmental concerns in Burundi include excessive deforestation and the extensive use of wood, and the uncontrolled exploitation of raw materials. Three major problems face the country: land degradation, deterioration of natural resources, and poor hygienic conditions.

Substantial movements of the population sparked by conflict that has plagued Burundi since 1993 have exerted considerable pressure on the environment and have aggravated deforestation and harmed protected areas. According to World Bank estimates, Burundi has seen an average of 9% of forests disappearing each year during the period 1990-2000 – signifying the highest rate of deforestation in the world.

In 1999, 47% of households in Burundi had access to safe drinking water. The disparity between urban and rural areas is clear: while 75% of urban households enjoy access to safe drinking water, only 43% of rural households have access to potable water or to non-contaminated water sources.

In order to achieve the MDG 7 targets, Burundi needs to ensure persistence in its efforts to provide basic services to its inhabitants, to accelerate the implementation of its environmental projects and to acquire increased financial resources from the international community as well as from the State budget. It also needs to provide more development assistance to isolated communities, especially those situated in areas of high altitude and in regions where the availability of water is scarce.<sup>1</sup>

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$1,482,500
<b>Total MPU and Bilateral:</b>	\$279,662
<b>Total:</b>	\$1,762,162

**Cumulative Total ODS Phased-Out:** 40.4 ODP tonnes



## SPOTLIGHT



### Strategies to Address the Energy-Poverty Nexus<sup>2</sup>

Burundi was one of the poorest countries in the world even before the severe civil crisis and ethnic conflict of the 1990s. Poverty in rural areas, where 91% of the population live, rose from 35% - 58% in the decade between 1992 - 2002. The Burundian people do not even have the means to efficiently harness electricity for lighting, mechanization and refrigeration and continuously rely on wood fuel and other biomass for their energy needs – according to 2002 statistics, 97% of power consumption was derived from these sources. Access to modern energy services is a prerequisite for economic growth, human development and achieving the MDGs in Burundi.

In 2003, the Ministry of Energy conducted a series of surveys to determine the role of energy in the national economy. UNDP is providing developmental assistance through the Energy Thematic Trust Fund (Energy TTF) with financing totalling US\$ 100,000. By addressing the energy-poverty nexus more directly, country-level energy interventions will firmly link to the MDGs and strengthen the position of UNDP to engage in further upstream policy dialogue. A number of learning trips to other African countries were organized for energy professionals from Burundi in order to enhance local capacity for developing more economic and eco-friendly sources of energy. Results were shared with local communities and decision-makers in Burundi and a strategy for mainstreaming energy in development programmes was developed at a national workshop.

UNDP's Energy TTF is also providing strategic inputs into the formulation of a Poverty Reduction Strategy Paper (PRSP) in Burundi, to ensure the mainstreaming of energy considerations. This effort will look at critical interventions to provide the poor with better access to productive opportunities and help reduce their dependence on unhealthy, unsustainable forms of energy. The official PRSP is expected to be completed in mid-2005.

Burundi suffers from a lack of modern energy services. 97% of the country's power is generated through biomass, which has limited economic growth. "The protection and sustainable use of biological resources constitute one of the strategies of hunger relief and poverty alleviation, especially in Burundi where the national economy is based on agriculture and breeding. That is the reason why UNDP agreed to assist the Government of Burundi in a campaign of needs assessment on capacities reinforcement for the sustainable management of living resources".

**Ibrahima D. Fall, Resident Representative**

## PORTFOLIO

### FSSD\*

UNDP is supporting the Government of Burundi to develop a number of frameworks and strategies for sustainable development, including the formulation of a national action plan of adaptation to climate change and the evaluation of capacity building requirements for global environmental issues, the NCSA. Both projects are funded by GEF.

### BIODIVERSITY

UNDP is supporting the conservation and sustainable use of biodiversity in Burundi through providing GEF-funded support to the preparation of a National Biodiversity Strategy and Action Plan and Country Report to the Convention on Biological Diversity. This two-fold project includes the formulation and validation of a national strategy for operational projects that focus on conservation and sustainable use of biodiversity, and will ensure that biodiversity considerations are mainstreamed into national planning.

### CHEMICALS

UNDP has worked closely with the Government of Burundi to enhance capacity in improved chemicals management since 1998. Projects funded by the Multilateral Fund of the Montreal Protocol have targeted various sectors: aerosols, foams and refrigeration. Currently, there are three projects being implemented in the refrigeration sector, focusing assistance on provision of equipment, and training of refrigeration technicians. Burundi is also participating in a regional methyl bromide (Me.Br.) phase-out project, implemented by UNDP for low-volume consumers in Africa. This project provides policy strengthening assistance to prevent the introduction of Me.Br. Use in the country.



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## CAMEROON

MDG7

**Progress Towards Environmental Sustainability**

Cameroon possesses a considerable biological diversity and natural resources. Nearly 90% of African ecosystems are represented in the country. In the last several decades, however, Cameroon has recorded significant damage to its ecosystems following the unsustainable use and exploitation of these resources. The 22 million hectares of forestland are receding by about 100,000 hectares per year. The main causes of this damage are: poaching, overgrazing, bush fires, population pressure, and fraudulent exploitation of forestry resources for exportation, timber and firewood. In

Cameroon, the use of wood as an energy source by households is mainly due to insufficient income.

In order to preserve the various ecosystems, the Government formulated a strategy on biodiversity and a Forestry and Environment Sector Plan (FESP) that aims to increase compliance with international conventions and regional agreements. In addition, there is a Framework Law on environmental management.

The proportion of households with access to safe drinking water remains low and the urban-rural disparities high; in 2001 it was 50.5% as against 44.2% in 1996. In 2001, 86.2% of households in urban areas had access to safe drinking water compared to 31.3% of households in rural areas. Apart from the Centre (62.3%), Littoral (73.7%) and South-West (75.1%), the other provinces remain below the national average.



## QUICK FACTS

**CURRENT PORTFOLIO BUDGET**

<b>Total UNDP-GEF and Co-Finance:</b>	\$3,300,213
<b>Total:</b>	\$3,300,213

Ensuring a sustainable environment for the Cameroonian population and the fulfillment of MDG 7 targets will necessitate several efforts, including: seeking in collaboration with the population alternative solutions towards the preservation of the environment, building the capacities of the communities through training and necessary assistance so as to enable them to plan, manage and maintain water infrastructure, reinstating the hygiene service in order to step up the fight against poor sanitation, seeking means of replacing wood to provide domestic energy, and facilitating access for the underprivileged populations to electricity and cooking gas.<sup>1</sup>

## SPOTLIGHT

**Cameroon: Community Pro-action Stimulates Reforestation<sup>2</sup>**

Montane forests are rapidly disappearing throughout much of the Bamenda Highlands region of Cameroon. Mount Kilum with its 20,000 hectares stands as the largest remaining forest of the Cameroon Mountain Range, a major source of biodiversity and livelihoods in West Africa. However, injudicious use of the area is threatening the numerous birds, reptiles and endemic or near-endemic species of amphibians. Equally, the region's water supply, firewood, fibres, and medicinal plants used by the local population are all under stress.

With a US\$ 1 million 2-year financing grant from the GEF provided in 2002, together with US\$ 2 million in co-financing, UNDP implemented a community-based conservation project in the Highlands. Communities adjacent to the forest participated in designing the project, as well as CSOs, including traditional authorities, and the Ministry of Environment and Forests (MINEF). The NGO Birdlife International has also been working with local communities in the region since 1987 and continued their partnership at one of the two project sites as the conservation began. 18 communities embarked on the community forestry process and major support from the Government has fostered continued relationships in sustainable forestry management.

Satellite imagery and aerial photographs have revealed significant regeneration of the region thanks to this local community management. As a result, forest-based economic activities have increased and the ecotourism potential has expanded. There are now 25 community-based Forest Management Institutions actively managing their forests and over 19,500 hectares now under community-based sustainable forestry management with an equal-sized area under government management. Recognizing the successful, dynamic relationship between the project sites, the NGO and the Ministry, neighboring communities have requested technical assistance in managing their forests. This project has demonstrated that sustainable forestry can have rewards and thanks to the efforts of the local community, the level of endemic biodiversity has remained stable or improved.



UNDP Cameroon is committed to implement projects and programmes focussed on improving environmental sustainability to reduce poverty. The country is also involved in partnership building, emphasizing UNDP's role to stay very close and effective in mobilizing all the stakeholders in the process of programme formulation and implementation. However, this process will involve more partners and donors to attract local and foreign funding for project implementation; the main purpose is to use the same methodology and processes in the national context and take into consideration the vision related to the MDGs into policy and strategy formulation.



**Patricia De Mowbray, Resident Representative**

## PORTFOLIO

### ENERGY

UNDP is supporting Cameroon to increase access to modern energy service through the Global Village Energy Partnership (GVEP) project, which provides support for the development of a National Action Plan for Cameroon to address access to energy services for sustainable development. GVEP bridges gaps between investors and energy users and facilitates policy dialogue and market frameworks to upscale energy services.

### BIODIVERSITY

In Cameroon, preserving biodiversity is central to reducing poverty in a national and international context. Enhancing capacity of the Ministry of Environment is part of Cameroon's domestic strategy to tighten the partnership with the Central African Conference on Forests. Trans-collaboration with Nigeria on a project brief provides a strategic framework to preserve biodiversity in Gashaka Gumti (Nigeria) and Tchabal-Mbabo, (Cameroon). The GEF-funded Bamenda Highlands project also involved a trans-boundary component with Nigeria (see Spotlight).

### CHEMICALS

With funding from the Multilateral Fund of the Montreal Protocol, UNDP has supported Cameroon in its efforts to phase-out ODS through assisting in project preparation in the aerosol sector. In addition, Cameroon is one of six participating countries of a UNDP-implemented project to establish a regional halon bank for West and Central Africa. The assistance available through this project is multi-dimensional, as it aims to achieve more than policy development and operational assistance, it supports cooperation, sharing of knowledge, and exploring a wider range of opportunities to address constraints.



### CONTACTS

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### PARTNERS

**Some of our Partners working with UNDP and the Government in Cameroon**

World Bank  
GTZ  
UNESCO

## CAPE VERDE



### Progress Towards Environmental Sustainability

Population growth and the pressure it exerts on Cape Verde's biodiversity, water, sanitation and housing has revealed the necessity of major efforts for environmental sustainability in the country.

After having pursued extensive efforts to combat desertification in rural areas since independence, Cape Verde modified these efforts since 1990 in order to better tailor them to country-specific targets and goals for environmental sustainability. Involvement at the political level and a stronger campaign for a sustainable environment were of priority and the ratification of several international environmental conventions, notably those on biodiversity, climate change, and desertification, quickly followed suit. The implementation of the provisions of these international conventions was put high on the agenda, which is evident in one of the principal objectives outlined by the Government: the conservation and the development of the islands' ecosystems.

However, the weakness of institutions, the lack of financial means and the high incidence of poverty have posed serious challenges to the protection of the ecosystems and especially to food security, the fight against environment related diseases and the increase in access to safe drinking water. Initiatives still need to be taken in Cape Verde in order to reconcile the efforts of public institutions with the participation and involvement of the local communities.

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$15,347,900
<b>Total UNDP and Co-Finance:</b>	\$485,756
<b>Total MPU and Bilateral:</b>	\$99,400
<b>Total:</b>	\$15,933,056

**Cumulative Total ODS Phased-Out:** 1.0 ODP tonnes

With regards to global Target 11 of MDG 7, a substantial percentage of the Cape Verdian population continue to live in poorly constructed houses, mainly due to poverty and unemployment. Poor residents use non-authorized land to build their houses, which in turn exposes them to the destruction of their shelter by the mayoral authorities. In order to resolve this problem, some mayors have decided to take a first step in legalizing certain land ownerships, in the hopes of facilitating subsequent efforts to construct more secure, healthy housing with the use of increased financial government and donor support.<sup>1</sup>

## SPOTLIGHT

### Natural Resource Management to Combat Desertification<sup>2</sup>

Once covered by dry forests and scrub habitat, this volcanic archipelago west of Senegal has been continuously adapted by its inhabitants, resulting in the almost purely man-made agrarian environment it is today. The use of poor farming practices causing soil erosion, the introduction of alien plants, and sparse rainfall have all contributed to severe land degradation in Cape Verde.

In support of the Government's efforts to combat desertification, UNDP has mobilized resources of US\$ 4.5 million since 2003 for the first phase of the implementation of three natural resource management projects to support Cape Verde's obligations under the United Nations Convention to Combat Desertification (UNCCD). Support to fighting desertification, environmental protection, and the provision of water to the rural areas of Cape Verde's Santiago Island are key priorities in this effort. The three projects address respectively, watershed management, enhancing water supply, and institutional capacity building with the participation of Santiago Island's rural communities.

The water supply project is considered an innovation in Cape Verde; the distribution of potable water over long distances from drilled wells or galleries to reservoirs, sanitary complexes, schools, health centres and even private homes in the rural areas has far exceeded expectations. Agricultural production has also increased considerably and an estimated total of 18,500 people have benefited from these initiatives. Santiago Island has also progressed well in its conservation efforts. Approximately 35-50 hectares of woodland are being preserved annually, as wood consumption has decreased by about 20% through the widespread use of improved stoves. Furthermore, a catalogue of over 1,000 references on desertification and watershed management issues, as well as desertification indicators for Cape Verde have been established, providing invaluable information for sustainable development methods and future drought mitigation.

Cape Verde is conducting a thorough assessment and analysis of the capacity needs and constraints facing the country, while it works to meet its global environmental management obligations as set forth in the Rio convention and related international instruments. UNDP is assisting the Government in sustainable environmental management efforts to reduce environmental degradation that plagues urban and rural areas. Efforts are also being made to conserve biodiversity through the creation of protected areas. The creation of jobs and generation of income constitute a major priority for Cape Verde's biodiversity projects, as is the conservation of endemic species.



**Alphonse Nkouka, Resident Representative**

## PORTFOLIO

### FSSD\*

UNDP is assisting the Government to integrate environment into poverty-reduction planning. For example, a UNDP-supported strategy in Cape Verde sought to reduce poverty and support the environment by focusing on micro-finance projects and promoting tourism to the island. In addition, with GEF funding, UNDP is supporting the Government to fulfil its commitments to international environmental conventions. For example, the National Capacity Self-Assessment (NCSA) process conducted a thorough assessment and analysis of the capacity needs and constraints to meeting global environmental management obligations as set forth in the Rio conventions.

### ENERGY

In the area of Climate Change, GEF is funding the formulation of the National Adaptation Programme of Action to support the Capeverdean government in its sustainable environmental management efforts. The goal is to alleviate the adverse effects of climatic change on activities related to agriculture production, natural resources and environmental protection. This initiative will continue until 2006.

### LAND

To fight growing concerns of land desertification, the Environmental Youth Project is a response from UNDP, together with the UN Convention to Combat Desertification and UN Volunteers. The project also addresses concerns of both growing youth unemployment and the environmental degradation evident in urban and rural areas. The project encourages the participation of young people in local environmental awareness projects, and employs them in activities to promote sustainable land use and recovery.

### BIODIVERSITY

UNDP is supporting the conservation and sustainable use of biodiversity in Cape Verde. For example, the GEF-funded programme, Integrated Participatory Ecosystem Management In and Around Protected Areas, seeks to conserve globally significant biodiversity through the creation of a system of protected areas encompassing six critical ecosystems. The programme aims to halt and reverse existing degradation of land and water resources within the protected areas and adjacent landscapes.

### CHEMICALS

The support being provided to the refrigeration servicing sector is an important component of UNDP's Energy and Environment assistance programme for Cape Verde. Through the implementation of this project 18 workshops are benefiting from provision of equipment and training directed at national service technicians. While it addresses capacity-building needs it also contributes directly to compliance with the Montreal Protocol commitments.

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### PARTNERS

#### Some of our Partners working with UNDP and the Government in Cape Verde

Government of The Netherlands  
Government of Venezuela  
UNV  
Peace Corps

## CENTRAL AFRICAN REPUBLIC



## MDG7

## Progress Towards Environmental Sustainability

Over 85% of household energy consumption in the Central African Republic comes from traditional fuels. This large reliance poses an increased threat to the country's ecosystems, unprotected areas, and accelerates the already rapid rate of deforestation. Reforestation efforts, while extensive, have not been up to pace with the high rate of deforestation. The Central African Republic has set a country-specific target of increasing the proportion of protected areas by 15% in order to reach this MDG 7 target by 2015.

The proportion of the population with access to safe drinking water increased from only 20% in 1990 to 38.8% in 2000, thanks to financial support from the international community. Progress has been most notable in rural areas where the rate increased from 18% in 1990 to 34% in 2000. However, the city of Bangui experienced a decrease in this rate from 63% to 58% during the same period; this is mainly due to exceptionally rapid population growth as well as to the emergence of sporadic residential neighborhoods. On the other hand, if efforts to increase the extent of access to safe drinking water continue at a steady rate, it is possible that the Central African Republic will reach MDG 7 global Target 9 by 2015.

Indicators for Target 11 reveal that 66% of the country's rural population lives in slums, as opposed to 34% of urban inhabitants. Over 80% of slum dwellers do not have access to safe drinking water. In 2000, only 25.6% of urban and rural households had access to a sanitary installation system.

While a National Environmental Action Plan was adopted in 1999, it was not followed up with concrete actions and was therefore poorly implemented. Other programmes and sectoral projects have had little impact due to the lack of coherent targets and goals. It is clear that much remains to be done in order to advance the prospects for environmental sustainability and to fulfill the targets under MDG 7.<sup>1</sup>

## QUICK FACTS

## CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$3,768,000
<b>Total:</b>	\$3,768,000

## SPOTLIGHT

Pro-poor Strategy to Ensure Access to Energy<sup>2</sup>

The energy situation in the Central African Republic is alarming: under 0.1% of rural households have access to modern energy sources and approximately 90% of the rural population relies on wood fuel to supply their energy needs. This is a major obstacle to future development of the rural population, as their livelihoods are based on agriculture. The lack of access to modern, renewable energy resources is also a critical factor in the current levels of poverty in rural villages, and further prolongs unsustainable development.

As a result, the Government has pledged to ensure that by 2015 at least 10% of rural households have access to modern, renewable energy for their domestic needs and production. This corresponds to the electrification of approximately 10 villages per prefecture, for a total of 160 villages. The

National Energy Policy Framework for Poverty Reduction is a pro-poor strategic document that defines the framework for intervention in the renewable energy sector in rural areas, and will mobilize the Government, NGOs, civil society associations and villages for this task. UNDP is supporting the capacity-building of decision-makers to promote energy for poverty reduction. The budget for this project is approximately US\$ 100,000 and will be executed by UNDP, with assistance from the Ministry of Mining, Energy and Hydraulics.

The framework will promote the importance of environmental protection, engaging rural communities and local authorities in the realisation and management of the projects. A national coalition to increase rural people's access to improved energy services is already under preparation. In addition, the Local Committee for Energy Initiatives is monitoring and providing oversight to various alternative energy projects for rural households. Lastly, the country's rivers contain numerous waterfalls and rapids that are suitable for hydroelectric alternatives and are being actively explored as a source of alternative energy.



In the Central African Republic, the objective of the Government's environmental strategy is to assess national capacity for environmental management and to determine the constraints and priorities for the creation, development and reinforcement of that capacity. This approach will create better-managed environmental resources for sustainable use, support the national development effort, and fight against poverty. UNDP undertakes missions and studies for exploring the challenges in energy and environment areas and provides the needed relevant and substantial support.



**Stan Nkwain, Resident Representative**

## PORTFOLIO

### FSSD\*

UNDP is supporting the Government to build national capacities in environmental policy and planning, and fulfill its commitments to international environmental conventions. For example, the GEF-funded National Capacity Self-Assessment (NCSA) process is currently assessing the national capacities to manage the environment, and contribute to global environmental benefits, by locating gaps and constraints to existing national development policies

### BIODIVERSITY

To promote the conservation and sustainable use of biodiversity in the Central African Republic, UNDP is implementing two GEF-funded projects focusing on sustaining and preserving biological diversity. At the strategic level, the development of the National Biodiversity National Strategy and Action Plan provides an overall, macro-level approach, outlining the required initiatives. At the local level, the Bangassou Forest initiative focuses specifically on building capacity in grassroots communities, enlisting sustainable technologies in protected areas and providing management skills to communities living in Bangassou forest on how to use natural resources in a sustainable manner.

### CHEMICALS

The Central African Republic is participating in a regional methyl bromide (Me. Br.) phase-out project being implemented by UNDP for low volume consumers in Africa. This project provides policy strengthening assistance aiming to prevent the introduction of Me. Br. use in the country.



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### Progress Towards Environmental Sustainability

The ecosystem in Chad is quite fragile and is highly affected by climatic change. Droughts and extensive exploitation of resources have contributed to the weak conditions of the natural environment. The desert, which covers around one third of national territory, is advancing by approximately 3-5 kilometers a year. No formation of a coherent strategy for environmental sustainability has taken place apart from the implementation of certain conventions on biodiversity, climate change, and combating desertification. Some

projects that the Government has undertaken include the Project for Conservation and Management of Natural Resources and the Project for the Conservation and Use of Natural Resources in South Eastern Chad.

Chad encourages strong collaboration between civil society, government, and the population in order to foster a sense of national concern with regards to the environment and its natural resources. However, degradation of natural resources will continue unless a comprehensive, coherent and people-centered strategy is defined and enforced.

Around 4% of households in Chad are of modern construction, whereas traditional housing infrastructure, vulnerable to unfavorable weather conditions, makes up 88% of households. In urban areas, around 57% of housing is of a traditional type, 32% is semi-traditional and 11% is modern. Given these figures, it is unlikely that Chad will be able to fulfill the goal of significantly reducing the proportion of slum dwellers by 2015, unless vast and sweeping efforts are pursued.

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$5,800,000
<b>Total UNDP and Co-Finance:</b>	\$2,671,580
<b>Total MPU and Bilateral:</b>	\$212,371
<b>Total:</b>	\$8,683,951

**Cumulative Total ODS Phased-Out:** 14.8 ODP tonnes

Environmental challenges in Chad necessitate the increased support of partners to focus on the formation of national sustainable development strategies modified to conform to the Chadian context, the strengthening of local capacity for environmental protection and management of natural resources, and improved implementation of international environmental conventions.<sup>1</sup>



## SPOTLIGHT



### Integrated Water Management Plan to Achieve the MDGs<sup>2</sup>

Two thirds of Chad's land area is desert, and over the past thirty years the country has suffered the consequences of a persistent drought, accelerating the desertification process and reducing the surface area of agropastoral land. The poor are vulnerable to chronic diseases related to their living conditions, and lack access to clean water and sanitation. Women and girls from villages without drinking water spend several hours each day collecting water, reducing the time the girls can attend school. The severe lack of basic infrastructure and the multiple water-related issues in the country prompted the Government to draw up a national water policy with integrated management strategies.

Funded through UNDP in 2002 with US\$ 2.2 million and executed by UNDESA, the Integrated Plan for Water Development and Management (SDEA) is a multisectoral, strategic master plan providing guidelines for the sustainable development and management of water resources in Chad. The overall aim of the plan is to achieve the MDGs – particularly the target to increase access to safe drinking water – and ensure integrated and participative management of water resources and its infrastructure. The SDEA also integrates economic options for development, environmental constraints and water resources into a single overall approach to sustainable development. The plan is not restricted to drinking water and sanitation issues, it encompasses all the other economic uses (industrial, agricultural, pastoral, and fisheries) and environmental uses of water (rainwater, surface water and groundwater).

The water management plan has already helped to redirect aid and design international aid programmes that are now in progress or upcoming. In 2003 and 2004, the Government began establishing the central, regional and local (public, private and association-based) management procedures laid down in the SDEA. These efforts to rationalize investments were undertaken in close collaboration with donors and technical organisations in the field of water management in Chad.

UNDP Chad's activities aim to reinforce national capacities in order to ensure a successful transition towards the oil economy. The office is also helping the national authorities to formulate, implement and evaluate policies, strategies and programmes intended to combat poverty and to promote human development where tolerance, solidarity, justice, safety, and human rights remain the foundation of Chadian society. UNDP Chad also considers water as a major force in their campaign to fight poverty.<sup>3</sup>

**Kingsley Amaning, Resident Representative**

## PORTFOLIO

### FSSD\*

UNDP is supporting Chad to fulfill its commitments to the three Rio Conventions, and ensure the integration and coherence of its environmental policies and initiatives. The GEF-funded National Capacity Self-Assessment (NCSA) document was drafted and completed in 2004, and provided a thorough analysis of areas in which Chad requires greater capacity to implement the measures as ratified under the three conventions.

### WATER

UNDP is working to support effective water governance in Chad to increase access to safe drinking water and sanitation, one of the targets of the MDGs. Chad's initial water governance initiatives were undertaken through implementation of the Water and Sanitation project from 1998 through 2003 through UNDP, with support from the French government. The Spotlight provides further information on local water governance efforts in Chad.

### ENERGY

In the area of Climate Change, the GEF-funded National Adaptation Programme for Action (NAPA) has been established to address the urgent and immediate national needs for Chad to adapt to the adverse impacts of climate change, and for preparation of the required National Communications to the UN Framework Convention on Climate Change.

### CHEMICALS

UNDP's initiatives to support the Government of Chad in complying with Montreal Protocol obligations have a history of over 11 years. Funding from the Montreal Protocol continues to make possible the successful implementation of technology transfer initiatives that target ODS consumption in the domestic and commercial refrigeration sectors. UNDP is currently supporting the Government of Chad through an incentive programme for the commercial/industrial end-user sector. The programme also provides technical assistance. Chad is also participating in a regional methyl bromide (Me. Br.) phase-out project, implemented by UNDP, for low-volume consumers in Africa. This project provides policy strengthening assistance to prevent the introduction of Me. Br. use in the country.



### CONTACTS

<http://www.td.undp.org/>

### PARTNERS

**Some of our Partners working with UNDP and the Government in Chad**

SCAC  
AFD

<sup>1</sup>Chad MDGR 2002 [http://www.undg.org/documents/2756-Premier\\_Rapport\\_Pays\\_sur.doc](http://www.undg.org/documents/2756-Premier_Rapport_Pays_sur.doc); <sup>2</sup>Project website, 'Integrated Plan for Chad's Water Development and Management 2003-2020: [http://www.un.org/esa/sustdev/tech\\_coop/sdea/english/](http://www.un.org/esa/sustdev/tech_coop/sdea/english/); <sup>3</sup><http://www.td.undp.org/>; <sup>4</sup>Frameworks and Strategies for Sustainable Development

## COMOROS



## Progress Towards Environmental Sustainability

While the biological diversity of Comoros is impressive, this small country still faces a long list of environmental problems linked to land degradation, water contamination and weak sanitation infrastructures. The governmental authorities recognize the restricting effect that the degradation of natural resources is having on the development of Comoros, especially on the eco-tourism sector. In that regard, the Government has adopted several legal instruments and mechanisms to better address problems related to environmental degradation. For instance, a National Environmental Action Plan has been devised, in addition to the country's ratification of major international conventions, including the Convention on Biodiversity.

Extreme poverty has forced much of the population to heavily depend on natural resources for their survival. Increasing energy needs as well as the absence of appropriate land management measures have resulted in widespread deforestation. As most household infrastructure is made of wood which is also the principal source of energy for cooking, this further intensifies the problem of deforestation.

As of 2001, 91.8% of the Comorian population had access to safe drinking water, which is an impressive increase of 55.1% since 1991. When looking more closely at this remarkable increase in the proportion of people with access to water, data indicate that figures rose by 63.5% in rural areas and by only 10% in urban areas between 1991 and 2001, thereby indicating effective water policy implementation in the rural communities.

## QUICK FACTS

## CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$833,400
<b>Total:</b>	\$833,400

In order to ensure that the MDG 7 targets for environmental sustainability are met, Comoros needs increased financial support, improved resource mobilization, and better and transparent implementation of legal environmental policies, especially those that sanction abuse of the environment. More importantly, good governance efforts and the fight against poverty are crucial if the Comoros is to reach its MDG 7 targets by 2015.<sup>1</sup>

## SPOTLIGHT

Reducing Poverty Through Marine Biodiversity Management<sup>2</sup>

The smallest of the four Comoros islands, Moheli and its marine environment are a treasure-trove of biodiversity, home to a rich variety of plant and animal species, including the endangered dugong, or 'sea cow', and the Livingstone fruit bat. The underwater caverns around the island are home to the coelacanth, a fish thought to have become extinct millions of years ago. Moheli also hosts one of the largest green turtle nesting beaches in the Western Indian Ocean. The island's 32,000 inhabitants are dependent on its marine resources for their subsistence, but have faced a period of 20 years struggling with resource overexploitation and impoverishment.

To end this spiral of environmental degradation and poverty, in 1995 the residents of Moheli adopted a collaborative and community-based approach to manage the resources upon which their livelihoods depend. For this purpose a GEF-supported US\$ 2.3 million project was launched by UNDP to establish a Marine Park through the collaboration of 10 village communities. As a result, since 1998 there has been a doubling of revenues for the fishermen working in the park and substantial local ecotourism benefits, particularly for women, from the sale of handicrafts. Forty-five green turtle breeding beaches are now protected, and destructive reef fishing practices have ceased.

The success of this community-driven resource management project is due to its local innovation, the dedication of the Management Committee, involvement of community residents and co-management between the Government and each of the villages that lie within the protected zone. In recognition of this outstanding achievement, UNDP also awarded the park with an Equator Initiative prize of US\$ 30,000, which will be essential for sustaining and expanding these efforts. Ecotourism, in particular, is one area for potential growth to bring increased and sustainable revenues to the islanders in the future.

UNDP's approach to ensure environmental sustainability to reduce poverty in the Comoros is twofold: On the one hand, it promotes and supports the elaboration of framework policies and of action plans for capacity development in view of improving and rationalizing the environmental management and risk. On the other hand, it encourages the development and replication of a model for sustainable development based on participatory management of the protected areas.<sup>3</sup>



## PORTFOLIO

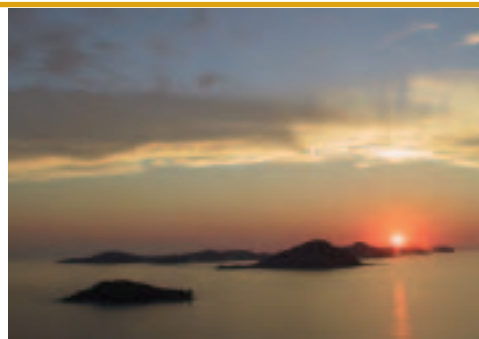
Giuseppina Mazza, Resident Representative

### BIODIVERSITY

UNDP is supporting the conservation and sustainable use of biodiversity in the Comoros. For example, a GEF-funded project is assessing the country's capacity development needs necessary to develop and implement appropriate measures to ensure biodiversity conservation in the Comoros. The 2-year project will enable the country to meet the requirements for compliance with the Convention on Biological Diversity.

### CHEMICALS

Assisted by UNDP, the Comoros received GEF funding to support the preparation of a National Implementation Plan. This exercise will build national capacity and facilitate a country-driven approach to meet their obligations under the Stockholm Convention on Persistent Organic Pollutants. The Comoros is also participating in a regional methyl bromide (Me. Br.) phase-out project, implemented by UNDP, for low-volume consumers in Africa. This project provides policy strengthening assistance to prevent the introduction of Me. Br. use in the country.



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<sup>3</sup>Comoros MDGR 2003 [http://www.undg.org/documents/5195-Comoros\\_MDG\\_Report.pdf](http://www.undg.org/documents/5195-Comoros_MDG_Report.pdf); 'UNDP-GEF, 'Developing Capacity, Conserving Biodiversity, Sustaining Livelihoods', 2004, available at: [http://www.undp.org/gef/undp-gef\\_publications/publications/biodiversity\\_brochure2004.pdf](http://www.undp.org/gef/undp-gef_publications/publications/biodiversity_brochure2004.pdf) and UNDP, UNDP Biodiversity for Development CD-ROM, 2003, available at: <http://www.undp.org/biodiversity/biodiversitycd/practiceComoros.htm#GEF> and GEF Online Projects database: <http://www.gefonline.org/projectDetails.cfm?projID=220> and IUCN, 'Moheli Marine Park: The first protected area in the Comoros – and Equator Initiative finalist', available at: [http://www.iucn.org/info\\_and\\_news/press/mohelinp.pdf](http://www.iucn.org/info_and_news/press/mohelinp.pdf); <sup>4</sup><http://www.km.undp.org/biodiversite.htm>



## CONGO, DEMOCRATIC REPUBLIC OF

## SPOTLIGHT

Phasing-out CFCs in the Foam Sector<sup>1</sup>

Following the end of the civil war in 2002, the ozone-depleting substances (ODS) phase-out efforts for the foam sector in the Democratic Republic of Congo required a change in strategy. The initial strategy, prepared in 1998, identified 40 tons of CFC-11 in the foam sector and proposed individual ODS phase-out projects. The economic situation, however, was changing rapidly following the conflict and it was also soon evident that many small enterprises had not been included in the original identification process. The obvious incongruence between the original inventory and actual implementation led to the decision to formulate a detailed sector phase-out strategy.

In 2002, UNDP and the Government together launched an umbrella project focused on eliminating all CFC-11 consumption in the foam sector. In conjunction with ongoing foam projects, this project aims for a complete phase-out of CFC-11 use in foam applications. The plan proposes to consolidate and replace current ODS-based technology with Methylene Chloride technology. To ensure effective implementation of this project, the private enterprises in the foam sector require technical assistance, trials and training.

Technical assistance will be provided by international and national experts to ensure a smooth transition to the new replacement technology. Trials with the new chemical formulations will then be undertaken to validate the new equipment, as well as the production process using the new chemical systems. Finally, training will be provided to acquaint the production personnel in the enterprises with the new equipment, formulations and processes.

Upon completion, this project will complete obligations for the foam sector, permanently eliminating the use of CFCs in the production of polyurethane foam. It will also allow the country to remain in compliance with the ODS reduction stipulations of the Montreal Protocol.



## CHEMICALS

## QUICK FACTS

## CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$18,456,077
<b>Total MPU and Bilateral:</b>	\$1,798,992
<b>Total:</b>	\$20,255,069

**Cumulative Total ODS Phased-Out:** 273.1 ODP tonnes





The Democratic Republic of Congo (DRC) with over 2.3 million km<sup>2</sup> of national territory, possesses a rich habitat of diversity, landscape, climate and ecosystems that offers the attributes of one of the countries with best secured natural resources on the planet. Because of the DRC's vast untouched territory, the Protected Area's system is vital to maintaining both vast biological diversity including endangered mountain gorillas, but also the livelihoods upon which this diversity is critical to. The PRSP as well as the DRC's commitment to reducing the effects of climate change through the UNDP and MPU will greatly assist in its pursuit of ecological sustainable development.<sup>2</sup>

**Ross Mountain, Resident Representative**

## PORTFOLIO

### ENERGY

In the area of climate change, UNDP is currently implementing two GEF-funded projects to assisting the country to identify priority activities needed in order to cope with the effects of climate change. These efforts also support the country in strengthening individual and institutional capacity by creating awareness and illustrating how technology can help mitigate the impacts of climate change.

### LAND

UNDP is supporting the Democratic Republic of Congo to implement sustainable land management practices. For example, with funding from the Global Mechanism and GEF, UNDP is assisting the country in establishing measures to strengthen legal and institutional capacity efforts towards fighting land degradation. The country is seeking to mainstream efforts in soil conservation, and this project also focuses on poverty reduction as highlighted in the Poverty Reduction Strategy Paper.

### BIODIVERSITY

To further the conservation and sustainable use of biodiversity, UNDP is working with the Government and the Congolese Institute for the Conservation of Nature (ICCN) to strengthen the country's protected areas by creating a supportive policy framework and an adaptable legislative, financial, institutional and social environment. The country is also kick-starting a long-term process of rehabilitation and recovery to protected land areas in accordance with the Convention on Biological Diversity.

### CHEMICALS

With the assistance of UNDP, the country has received funding from the Multilateral Fund of the Montreal Protocol to reduce atmospheric pollutants through the implementation of a total of 13 projects that targeted the foams and refrigeration sectors. The assistance provided is a well-integrated part of the country's sustainable environmental support programme and initiatives, and varies from direct equipment provision, to technical assistance and training of private sector refrigeration technicians, and foam production enterprises. In addition, the country is also part of two regional UNDP programmes underway in Africa for low volume consumers – one in the halons sector, the other in methyl bromide elimination.

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### PARTNERS

**Some of our Partners working with UNDP and the Government in Democratic Republic of Congo**

Global Mechanism

<sup>1</sup>UNDP DRC Project Document, "Terminal Umbrella for the Foam Sector"; <sup>2</sup><http://www.iccnrdc.cd/recherche.htm> and <http://www.cd.undp.org/>

## CONGO, REPUBLIC OF



## Progress Towards Environmental Sustainability

Congo suffers from the absence of an active management body that monitors the use of environmental resources. It is clear, however, that there is widespread and harmful exploitation of resources, which, if continued, will make it impossible to reverse the loss of environmental resources. Policies tailored to the Congo's environmental needs are vital and must be quickly implemented in order to improve the country's prospects for environmental sustainability.

Some of the obstacles to environmental sustainability in Congo include: the abuse of environmental resources, sporadic and illegal inhabitation of land areas (for purposes of agriculture), the endangerment of wildlife and of plants – even in areas declared as protected – and deforestation. 67% of households depend on wood as their principal source of energy.

Population growth has had considerable impact on water availability in Congo as well as on the wide urban-rural gap. In 1990, 52.3% of households, both urban and rural, had access to safe drinking water as opposed to 46.3% in 1999. Put another way, 73.4% of urban households and only 10% of rural households had access to water in 1999. In 2003, it is estimated that 6 out of 10 urban households and only 2 out of 10 rural households had access to water. This regional disparity holds back Congo's ability to reach MDG 7 Target 10.

## QUICK FACTS

## CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$1,257,600
<b>Total MPU and Bilateral:</b>	\$118,078
<b>Total:</b>	\$1,375,678

Extensive urban population growth has led to many moving into city peripheries where the price of property is much lower, but the infrastructure of houses is very poor – no running water, electricity or public transport. The absence of a national housing policy and a financing mechanism prevent any improvement in access to secure tenure.<sup>1</sup>

## SPOTLIGHT

LP Gas Improves Women's Lives and Protects Forests<sup>2</sup>

Congolese forests cover 65% of the total land area, and an estimated 90% of the population depends principally on wood fuel in order to meet their domestic energy requirements. However, although the abundance of forest cover represents a rich source of income-generating activities, as well as a tremendous potential for eco-tourism, two decades of economic and social crisis and successive conflicts since 1993 have devastated any eco-tourism possibility. The conflicts also destroyed livelihoods and shattered fragile social ties.

Following the peace accord, an ambitious NGO called "Women and Energy" provided a new source of income generation that reduced wood-consumption and deforestation. The use of butane gas has long been considered a luxury in the Congo, however, a policy of "butanisation" quickly popularised its distribution in households. Led by a Liquid Petroleum (LP) Gas company, kit burners were manufactured and introduced onto the market in three of the country's main cities, as well as several secondary localities. In order to reduce the costs of the promotional kits and further support the clean energy initiative, the company provided training for the burner manufacturers, supported the improvement of living conditions for women, and provided an initial step in safeguarding the Congo's precious forests. Total funding of US\$ 380,000 was provided and UNDP offered technical and logistical assistance for the entry of the LP Gas association into Congo's markets.

A report indicating the number of distributed burners and households that adopted and integrated this source of energy will soon be provided in order to draw comparative lessons from this operation. The company is now looking to build upon this success and create improved hearths with better insulation, reducing heat loss and providing additional cost savings for the end users.

Congolese forests cover 65% of the total land surface area, 12% of which includes the Congo basin, and are subject to unprecedented industrial exploitation. Despite an extensive hydrographic network, 90% of the population depends principally on wood fuel in order to meet its domestic energy requirements. UNDP Congo has supported the national authorities to develop an energy strategy that would effectively reduce the negative effects of climate change and the sustainable use of forest resources. UNDP is also leading the coordination efforts in partnership with Société Agricole de Raffinage Industriel du Sucre (SARIS), National Reforestry Society and local NGOs to mobilize resources for an agro-forestry programme that would provide wood for energy needs and construction; income from sale of wood products; and reinforce GHG absorptive capacity of forest covers. The principal beneficiaries of these objectives would be the marginalized populations.<sup>3</sup>

**Aurelien Agbenonci, Resident Representative**

## PORTFOLIO

### ENERGY

In the area of climate change, UNDP is assisting the Government to developing a national energy strategy, focusing on reducing the negative effects of climate change. This process is funded by GEF. To reduce GHG emissions, UNDP is also supporting the country to integrate alternative technologies to reduce the extremely high reliance on fuel wood for energy needs, currently representing approximately 90% of the population.

### BIODIVERSITY

To support the conservation and sustainable use of biodiversity, UNDP is implemented two GEF-funded activities under the development of the National Biodiversity Strategy and Action Plan, beginning with capacity building exercises. GEF funding made possible the purchase of computer hardware, access to the Internet and basic training for project personnel. Assistance was also provided for project implementation and additional capacity-building assessment on biodiversity evaluation and monitoring programmes, and for preservation and maintenance of indigenous and local community knowledge.

### CHEMICALS

UNDP is assisting the country's actions for compliance with the Montreal Protocol through the implementation of the RMP component on centralized recovery and recycling of CFC-12 comprises. In addition, the country is also part of two regional UNDP programmes underway in Africa for low-volume consumers – one in the halons sector; the other in methyl bromide Elimination. In addition, UNDP provides administrative support to programmes implemented by other multilateral agencies and is currently playing a facilitative role in the development of the POPs National Implementation Plan, implemented by UNIDO.



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### PARTNERS

**Some of our Partners working with UNDP and the Government in Republic of Congo**

World Bank  
BAD  
IEPF

## CÔTE D'IVOIRE



## Progress Towards Environmental Sustainability

General degradation of Côte d'Ivoire's ecosystems and limited protection of biodiversity mark some of the problems the country is facing with regards to environmental protection. Protected areas made up only 7.2% of national territory in 2002. Moreover, these areas are under constant exploitation by inhabitants that practice harmful cultivation methods involving coffee and cocoa and that use wood for heating and charcoal.

Progress has been noted, however, thanks to some government efforts to reduce the rate of use of solid fuels – from 90.8% in 1993 to 81.1% in 2002. In addition, the MDG 7 indicator for energy use per unit of GDP reveals some improvement, as it was at 0.37% in 1995 and decreased to 0.27% in 2002.

The proportion of the population with access to an improved and sustainable source of water has been in constant progression since 1993 – from 36.4% in 1993 to 51.2% in 2002. While the coverage is larger in urban areas, the rate is increasing at a higher pace in rural areas than in urban areas. This MDG 7 water target is likely to be reached by 2012 if the current rates of progress are maintained.

Prospects for access to basic sanitation are less encouraging. Trends show that the proportion of the population with access to an improved sanitation system will be at around 57% as opposed to the initially perceived goal of 81% for 2015. This is mainly due to a dysfunctional sanitation system that needs more funding and increased attention to repair certain vital facilities.

## QUICK FACTS

## CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$6,740,000
<b>Total UNDP and Co-Finance:</b>	\$421,260
<b>Total:</b>	\$7,161,260

**Cumulative Total ODS Phased-Out:** 273.1 ODP tonnes

Côte d'Ivoire faces challenges that include proper land management, implementation of environmental legislation, reduction in the use of charcoal, increased preservation of biodiversity, and improvement in industrial production technologies. External partner support is needed in order to implement projects in urban and rural areas, especially those focusing on improved sanitation and increased access to secure housing for vulnerable groups and at an affordable cost.<sup>1</sup>

## SPOTLIGHT

Communal Solar-Powered Lighting for Households, Clinics, Schools and Community Centres<sup>2</sup>

Approximately 7 million people living in Côte d'Ivoire's 8,500 villages still have no access to electricity, and little expectation that they will receive electricity through conventional methods within the next 50 years. As an alternative, the GEF Small Grants Programme supported a set of solar electricity projects in Côte d'Ivoire to test communal solar photovoltaic (PV) systems as a low-cost method of electrification of households, health clinics, schools and community centres. Five projects received SGP grants of US\$ 45,103 each, and were implemented in 2001-2002 by a partnership of four NGOs operating in 15 villages in five districts.

The districts were selected because they were not included in the country's electrification plans for the next ten years. The NGOs, local populations and elected officials agreed together on the locations and priorities of project activities. In one set of villages, they focused on household lighting; in another, public and household lighting was provided. Existing committees are responsible for the maintenance of the communal PV system.

While some problems were encountered, such as locating spare parts for the PV panels, the homes of about 2,000 people, plus 31 public buildings, including schools and health centres, have benefited from lighting. The opportunity to work at night has enabled villagers to engage in additional income-generating activities, such as spinning cotton and other products of locally grown crops. Similarly, lighting in community centres has helped establish increased adult education opportunities, while improved lighting in schools provides a better learning environment and has attracted more teachers. Furthermore, the reduced use of wood and kerosene in these villages reduces GHG emissions contributing to climate change.



UNDP is supporting government efforts to achieve significant results for environment promotion through community based approaches to implement projects at the local level. Community based initiatives are supported with GEF/SGP funds and a strategic link established with the poverty reduction programme activities. UNDP is receiving a huge demand for support in both the area of environment preservation and income generating activities targeting vulnerable people affected by the socio-economic impact of the present crisis the country is facing. New partnership opportunities will be developed during the post-crisis recovery process.



## PORTFOLIO

**Abdoulaye Mar Dieye, Resident Representative**

### WATER

UNDP is supporting the Government's efforts to effectively manage its water resources. Laying the foundation for integrated watershed management was a key strategy to tackling the root and spread of excessive increase in water nutrification that has plagued many water bodies around the country. Cote d'Ivoire will rely primarily on local NGOs and Community-based Organisations to further this agenda. Having received initial funding from GEF, the country is now using national resources and funding from other partners for ongoing project management and evaluation of waterways.

### BIODIVERSITY

To further the conservation and sustainable use of biodiversity in Côte d'Ivoire, UNDP is implementing projects such as the "New Rice of Africa" project, which aims to establish a national-scale community-based system to accelerate the multiplication and dissemination of Nerica, a new variety of hybrid rice in Côte d'Ivoire. Launched in 2002 for a period of 5 years with two phases, the new rice cultivation method expects to increase non-fertilised yields by 50%. Benefits are not only reserved for Cote d'Ivoire. On a regional scale, up to seven West African countries can expect to save up to US\$ 88 million on rice imports in 2006.



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### PARTNERS

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Government of Japan  
Government of USA  
FDFP  
BOAD

## SPOTLIGHT

**Post-war Project Resurrection Shows Promise<sup>1</sup>**

Eritrea has many development priorities. Traditional sources of economic support are subsistence agriculture and livestock rearing in the hinterland, with artesian fishing on parts of the coastline. However, due to land degradation and subsequent population movements, the primary economic development opportunities for Eritrea now lie in its coastal, marine and island (CMI) areas. These opportunities include fisheries, trade, oil exploration and tourism, and exploitation of these sectors will have a significant impact on the local environment and the surrounding Red Sea.

The Eritrean Coastal, Marine and Island Biodiversity (ECMIB) Project was approved in 1996 with support from the GEF, but was quickly suspended in 1998 at the outbreak of the border war with Ethiopia. However, UNDP and the Eritrean Government successfully resumed the 5-year project in 2004 with GEF funding of US\$ 4.98 million. The ECMIB serves the dual purposes of conserving the unique and globally significant biodiversity in Eritrea's coastal and marine areas, while facilitating locally accepted sustainable economic development in the areas it covers. The approach includes creating an enabling environment for communication and cooperation between all government agencies, the private sector, and local communities; development of a zoning and action plan for addressing development impacts on the CMI resources; preparing Environmental Impact Assessment guidelines and a sustainable financing strategy; and the establishment of effective mechanisms for regional and international collaboration.

The project has recently been revised to narrow its geographical focus to the major ports of Massawa and Assab and several Marine Protected Areas are expected to be declared by 2006. While the project may have only recently recommenced, considerable promise is evidenced by the Government's willingness to address critical environmental issues and coastline management so soon after the conflict.



## BIODIVERSITY

## QUICK FACTS

**CURRENT PORTFOLIO BUDGET**

<b>Total UNDP-GEF and Co-Finance:</b>	\$8,292,000
<b>Total UNDP and Co-Finance:</b>	\$50,000
<b>Total:</b>	\$8,342,000





UNDP works with Eritrea's national focal points on biodiversity, climate change, and desertification. The preparation of the PRSP is underway and has integrated the MDGs and environment concerns. Eritrea has developed many strategies including a National Management Plan in line with the international goals embodied in Agenda 21. Eritrea is developing in the areas of integrated land management, legislative and regulatory frameworks for management of natural resources, and building capacity for sustainable development.<sup>2</sup> UNDP will continue to provide financial and technical support to the Government in its efforts to protect and regenerate the environment, while the Government is expected to do its part in meeting its millennium development targets.

**Macleod Nyirongo, Resident Representative**

## PORTFOLIO

### ENERGY

UNDP is supporting access to sustainable energy services in Eritrea. For example, with GEF-funding the government is introducing wind energy technology in rural areas as part of its commitment to sustainable economic development under Local Agenda 21. Recently, a 750 Kwh capacity wind farm was installed in Assab, selected villages were outfitted with 8 small turbines and infrastructure was increased in order to replicate, operate and maintain the new wind energy technology. In terms of climate change, GEF is also funding the development of the National Adaptation Programme of Action, which consists of adaptation and vulnerability assessments of 5 major sectors that are negatively impacted by climate change.

### LAND

In accordance with the Government of Eritrea's specific efforts to create an integrated system of land management, UNDP is supporting the integration of the National Action Plan on Desertification into the national development framework. Roundtable donor meetings and the production of documentaries and awareness-raising campaigns in local communities enable improved resource-mobilization for priority projects. The UN Convention to Combat Desertification has committed significant funding in support of this project.

### BIODIVERSITY

UNDP is supporting the conservation and sustainable use of biodiversity, through the implementation of GEF-funding to finance Eritrea's efforts, including awareness-raising activities, information management on coastal, marine, and island biodiversity, along with the establishment of Protected Areas and Marine Protected Areas. Further details on this initiative can be found in the Spotlight section.



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<sup>1</sup>UNDP Eritrea homepage, available at: <http://www.er.undp.org/docs/ecmibfs.pdf> and Eritrea Daily, 'UNDP restarts project to shield coastline', 2005, available at: <http://www.eritreadaily.net/News2005/article200506072.htm> and GEF Online database: <http://www.gefonline.org/projectDetails.cfm?projID=411>; <http://www.er.undp.org/e&e.html>



## SPOTLIGHT



### Community Gene Banks Restore Local Landrace Knowledge<sup>1</sup>

During the 1980s it was thought that replacing landraces with modern strains of higher yielding seed would protect against food shortages. Genetic erosion and the resulting tragedies soon took their toll in Ethiopia. Soil fertility and knowledge of local crops strains were reduced, while natural and man-made catastrophes such as famine and drought accelerated worsening conditions.

A UNDP/GEF project, initiated with the Institute of Biodiversity Conservation and Research (IBCR) in 1997 served to reverse this trend. With a \$2.5 million grant from the GEF and additional cofinancing from the Ethiopian Government, the project worked with farmers on their farms to conserve Ethiopia's rich plant genetic resources. Through strengthening ties between farmers and scientists, establishing community gene banks and training farmers to preserve planting materials, over 400 different crop plants have been conserved and 285 varieties that were in danger of being lost have been revived. Working with farmers in their local farming systems at the project sites, the project has demonstrated how a balance of old-world tradition and modern agro-science can successfully preserve seeds and other planting materials for future generations.

As a result of the project, food security has increased and community ties are stronger. A scientific review team described the project as "the global pioneer in promoting community-based landraces conservation and enhancement." Internationally, the project is working with agricultural research centres in Syria, Mexico and India, contributing to the global preservation of genetic variety in crop strains, critical to preventing future epidemics. By enhancing international cooperation, the project not only benefits local farmers, but also the global genetic resources conservation community. The project is now working to encourage greater collaboration among Ethiopian organizations and to create a more significant role for women in the project.



## QUICK FACTS

#### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$591,000
<b>Total:</b>	\$591,000





UNDP's Water and Environment Unit in Ethiopia combines upstream policy support, technical capacity building as well as implementation of projects on the ground.<sup>2</sup> Projects are basically supporting policy development, capacity building, global environment obligations, and community based natural resources management, primarily, in rural areas.<sup>3</sup> UNDP Ethiopia has crafted its overall programmatic interventions particularly the Environment Programme to tackle not only the environment sustainability issue but more importantly the sustainability of livelihoods through the sustainable use of environment resources, which is in line with the Ethiopian Sustainable Development and Poverty Reduction Programme as well as the MDGs.



**Modibo Toure, Resident Representative**

## PORTFOLIO

### FSSD\*

UNDP is providing policy support and technical capacity building to assist the Government in creating an improved enabling environment for sustainable development in Ethiopia. Together with the implementation of a multi-player capacity building and community natural resources management project, watershed management, water harvesting, and gully rehabilitation have all been made possible through funding from UNDP.

### WATER

UNDP is supporting effective water management in Ethiopia to increase access to safe drinking water, one of the targets of the MDGs. The UNDP-funded Water Resources Development and Utilisation project is strengthening capacity building for the implementation of the 15-year water sector development programme at the community and federal level, which will provide long-term rehabilitation of water supply and small-scale irrigation schemes.

### ENERGY

To prepare Ethiopia to adapt to the impacts of climate change, UNDP, with funding from GEF, is supporting the preparation of the country's required National Communication to the UN Framework Convention on Climate Change. This includes making GHG inventory, assessment of potential climate change impacts, and development of an analysis and action plan to mitigate negative effects.

### LAND

With funding from the Japanese Human Resources Development Fund, UNDP is supporting the introduction of "New Rice for Africa" (NERICA) to rural households in Ethiopia as a means to alleviate hunger and poverty. NERICA is a drought-resistant and highly productive rice variety and has proven highly successful in West African countries.

### BIODIVERSITY

With funding from GEF, UNDP is assisting the Government in incorporating biodiversity considerations into national planning, through the development of the National Biodiversity Strategy and Action Plan. This was developed through a highly consultative process, beginning with the local community, civil society and government participants. In addition, UNDP is supporting Ethiopia's protected area system with financial, technical and logistical resources to undertake a nation-wide planning exercise focused on critically endangered and globally significant biodiversity. Other projects include a comprehensive fauna and flora assessment at Lakes Awassa and Zeway in the rift valley.

### CHEMICALS

Ethiopia is participating in a regional methyl bromide (Me. Br.) phase-out project, implemented by UNDP for low-volume consumers in Africa. This project provides policy strengthening assistance to prevent the introduction of Me. Br. use into the country.

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### PARTNERS

**Some of our Partners working with UNDP and the Government in Ethiopia**

UNDESA  
Government of Japan  
Global Mechanism

<sup>1</sup>UNDP Ethiopia homepage, available at: <http://www.et.undp.org/energy/environment.htm> and Frank A. Campbell, 'Ethiopia a Seed-Basket to the World? Yes!', available at: [http://www.gefweb.org/ResultsandImpact/Results\\_at\\_a\\_Glance/Project\\_Stories/Ethiopia-final.doc](http://www.gefweb.org/ResultsandImpact/Results_at_a_Glance/Project_Stories/Ethiopia-final.doc) and GEF Online database: <http://www.gefonline.org/projectDetails.cfm?projID=351>; <sup>2</sup><http://www.et.undp.org/energy/undpimpact.htm> and <http://www.et.undp.org/energy/waterenviportfolio.pdf> Page ; \*Frameworks and Strategies for Sustainable Development



### Progress Towards Environmental Sustainability

Some of the environmental challenges facing Gabon's population include access to secure tenure, safe drinking water, and especially to basic sanitation services – both in urban and rural areas. There is little protection of natural resources, as there is widespread exploitation and heavy dependence on and exploitation of the natural environment. Pollution is a pervasive problem, especially with regards to water contamination. Poor water management, limited access to energy services as well as to financial resources have also led to little progress in ensuring environmental sustainability.

In an effort to ensure land conservation and biological diversity, the Government has set a target to designate 10.8% of national territory as protected areas that would include national parks. A National Environmental Action Plan has been devised as well as a National Strategic Plan for the Conservation of Biodiversity and a Plan of Action for National and Tropical Forests, in the hopes that these national strategies will assist in the monitoring and implementation of sustainable environmental policies.

Progress has been made towards achieving the MDG target for safe drinking water; the proportion of the population with access to safe drinking water was 67% in 1995 and it is projected to increase to 83% by 2015. With regards to access to basic sanitation, only 33% of the population enjoyed this access in 1993, and it is estimated that this figure will increase to 75% in 2015.

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$24,305,700
<b>Total UNDP and Co-Finance:</b>	\$44,044
<b>Total MPU and Bilateral:</b>	\$85,277
<b>Total:</b>	\$24,435,021

**Cumulative Total ODS Phased-Out:** 14.4 ODP tonnes

Gabon envisages that the MDG targets for environmental sustainability will be easier to achieve once a well-financed urban development plan is in place, civil society is engaged more effectively in the collective effort to protect the environment, and solid waste management programmes and other projects addressing Gabon's environmental challenges are promoted and dealt with at the national as well as at the local level.<sup>1</sup>

## SPOTLIGHT

### Improving Waste Collection for Environmental Health<sup>2</sup>

A rural exodus, an influx of immigrants and 50% of the population aged under 18 has put increased pressures on the environmental health of the capital Libreville. Commercial, industrial and household activities unleash 800 tonnes of refuse each day, further worsening the degradation of the urban environment. With over half the total population of Gabon residing in the city, it is now critical to address this environmental challenge.

In agreement with the Governor of Libreville, UNDP financially assisted a 2-year pilot sanitation project in the neglected districts of Akébé Plaine, Belle-vue II, Atong Abé and Plein Ciel. The project funding was approximately US\$ 425,000 and began in January 2004. The project focuses on improving the environment and reducing poverty among young people by creating a long-term information, communication and education programme, an intensive youth employment scheme, and building the community's capacity to manage waste. Technical and logistical assistance is being provided through the Regional Centre for Potable Water and Sanitation, a resource centre designed specifically for capacity building in water and sanitation projects in Africa, and the Gabon Association for Household Recycling.

One early success of the project has been the establishment of an extensive media campaign illustrating the benefits of effective sanitation. In addition, Libreville City Hall has organised new waste collection routes, and recruited a UN Volunteer specialising in sanitation to further assist with oversight and evaluation of the expected project outcomes. The remainder of the project's duration will focus on encouraging youth participation and establishing a model that can be replicated in other less-integrated districts of the city, and in urban centres of the country's interior.

Water and energy are so central to the quality of life and the blossoming of economic activity that their presence or absence traces a fine line between poverty and well-being. Access to the essential services of water and electricity is a required pathway to reaching the Millennium Development Goals in Gabon.<sup>3</sup>

**Bintou Djibo, Resident Representative**

## PORTFOLIO

### FSSD\*

UNDP is supporting Gabon's efforts to develop national capacities in environmental policy and planning. For example, in 2004, the Government of Gabon provided funds towards roundtable discussions, and to reinforce capacity of the Director General of the Environment toward implementation of the National Environmental Action Plan.

### ENERGY

In terms of Climate Change, UNDP supported Gabon in the preparation of its initial National Communication to the UNFCCC, funded by GEF. The process included making an inventory of GHGs, conducting studies of vulnerability and adaptation to climate change, and analysing the abatement of GHG. Additional activities relating to technology transfer and systematic observation systems, with an emphasis on information transfer, awareness and education are further contributions to Gabon's commitment to combating climate change.

### CHEMICALS

UNDP has assisted Gabon with its Montreal Protocol compliance programme for over 8 years. The support is focused on the refrigeration sector, through development of a refrigeration management plan update that provides the necessary additional training and spare parts to the national refrigerants recovery and recycling effort. The initiative is accompanied by a monitoring component that ensures proper maintenance practices are in place. Gabon also participates in a regional methyl bromide (Me. Br.) phase-out project, implemented by UNDP for low-volume consumers in Africa. This project provides policy strengthening assistance to prevent the future introduction of Me. Br. use in the country.



### CONTACTS

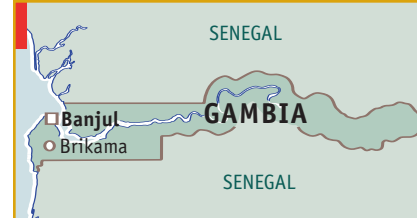
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<sup>3</sup>Gabon MDGR 2003 [http://www.undg.org/documents/3501-Gabon\\_MDG\\_Report.pdf](http://www.undg.org/documents/3501-Gabon_MDG_Report.pdf); "UNDP Gabon, "Gestion urbaine partagée à Libreville", 2004: <http://mirror.undp.org/gabon/publication/Fiche%20sur%20situation%20actuelle%20projet%20assainissement.pdf>; "http://mirror.undp.org/gabon/ and <http://mirror.undp.org/gabon/domaines-thematiques/nrj-environnement.html>; "Frameworks and Strategies for Sustainable Development



### Progress Towards Environmental Sustainability

MDG7

Overall, 84% of Gambians live in households with sanitary means of excreta disposal, including pit latrines. In urban areas, access is 96%, whilst in rural areas it is 83%. Across wealth categories, 98.5% of the richest category has access to sanitation, compared with 71.5% for the poorest category. With regard to secure tenure of accommodation, the percentage is highest in rural areas where it ranges between 70-89%. In Banjul and Kanifing Municipal Area, secure tenure is 27% and 42%, respectively. Most of the people in urban areas live in rented premises. High rental rates reflect the fact that the procedure for accessing and owning land is relatively easier in the rural areas.

Access to improved water supply has increased rapidly over the past two decades, and national coverage is estimated to be 84% of the total population. This indicates that Gambia is on track to achieving this MDG target ahead of schedule. There are, however, some disparities between urban and rural areas. In urban areas, the figure is 94.6%, whilst in rural areas it is 77.1%. The lowest coverage is registered in the central part of the country (Janjanbureh), where coverage is 70.9%. There are, nevertheless, programmes in place aiming to lessen this disparity.

Moreover, a few major settlements of over 5,000 people do not have access to safe drinking water because they are too big for small-scale reticulation systems and have not been linked to the commercial distribution network. Human population growth has resulted in increasing demand, which has outstripped supply in some villages with improved water systems. There is also increasing risk of contamination from livestock using the same water source, especially during the dry season.

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$237,900
<b>Total UNDP and Co-Finance:</b>	\$7,159,621
<b>Total:</b>	\$7,397,521

**Cumulative Total ODS Phased-Out:** 11.0 ODP tonnes

Persistent droughts and water shortages have drawn both national and international attention to the need to provide adequate supplies of safe drinking water in The Gambia. This has generated considerable donor interest and support, which has facilitated efforts to attain MDG 7 targets.<sup>1</sup>

## SPOTLIGHT

### Youth Employment Promotes Environmental Sustainability<sup>2</sup>

In industrialized nations as in transition economies, young people must be embraced and given key roles in growing, sustaining or revitalizing an economy. The high rate of youth unemployment in the Gambia provided the nation a unique opportunity to harness the energy and enthusiasm of its young people to assist in advancing environmental initiatives.

The National Environmental Youth Corps is a 5-year project which began in February 2002 and addresses environmental concerns and promotes general public awareness of environmental issues. With funding of over US\$ 1.5 million from UNDP regular resources, it is anticipated that 2,000 young people will be trained and equipped in environmental management techniques under the project. Other beneficiaries include selected villages that will profit from the availability of locally-produced goods and increased income-generation and expenditure. During the course of implementation, the project's main goal is to transfer knowledge and ownership. By involving local communities, NGOs and the Government, benefits become intertwined and reinforcing; the greater the number of participants, the greater the success of the project.

The project has so far recorded many benefits. To date, over 21 km of firebreaks have been established to reduce damage from bush fires; over 300 cashew seedlings, 60 banana plants and 50 Gmelina seedlings have been transported; 2 hectares of vegetable gardens have been established and over 4 hectares have been prepared for orchard development; 8 wells have been rehabilitated for horticultural activities; and 60 beehives have been distributed. The projects are not only about quantifiable, economic measures of success, but also the immeasurable. By preserving their cultural way of life, the venture provides employment and income for the local populace, and has managed to keep family members together who would otherwise have had to migrate in search of better economic opportunities.



UNDP in the Gambia supports government development initiatives consistent with the MDGs to promote sustainable development. In partnership with the Gambian government, civil society including the local communities, NGOs and the private sector, UNDP assists in enhancing the capacity of the Government and people of the Gambia to manage their development process.<sup>3</sup> There is increasing awareness and concern for the environment and the high rate of youth unemployment in the Gambia. The National Environment Youth Corps project harnesses the energy of youth to generate income in solid waste management, environmental rehabilitation and sustainable use of natural resources.

**John O. Kakonge, Resident Representative**

## PORTFOLIO

### FSSD\*

UNDP is supporting the Gambia to achieve the MDGs, through a project to build national capacity for sustainable development, funded by UNDP's Capacity 2015 initiative. The project focuses on strengthening partnerships, improving local-level planning in sustainable development, and information dissemination. The project operates in 5 out of the 8 local government areas and is financed through UNDP and Capacity 2015.

### WATER

UNDP is assisting the country's efforts to increase access to safe drinking water and sanitation – one of the targets of the MDGs. For example, the rural water supply and sanitation project successfully promoted education on sanitation, health and hygiene, as well as constructing of water-supply facilities and developing a National Water Resource Management strategy. The joint-funded UNDP-UNCDF project financed the installation of solar-powered water supply systems, hand wells, and improved sanitation facilities in 3 out of 5 administrative divisions.

### ENERGY

To support the Gambia to respond to climate change, UNDP is assisting the preparation of the country's First National Communication to the UNFCCC, with funding from GEF. The process involves an inventory of GHGs, an assessment of potential impacts of climate change, potential measures to abate GHG emissions, and capacity-building activities.

### LAND

UNDP supports the Gambia to respond to and prevent natural disasters through sustainable land management practices. For example, the project "Emergency Assistance to Averse Locust Invasion" assisted the Department of State for Agriculture to coordinate extension teams in their efforts to reverse the current increase in locust invasion. A locust control campaign established field-based teams in all the regions of the Gambia, and supported bilateral collaboration for joint locust control measures with neighbouring countries.

### BIODIVERSITY

UNDP is promoting the conservation and sustainable development of biodiversity in the Gambia. For example, the National Environment Youth Corps (see Spotlight) is working to enable young people to earn a living, while conserving the country's natural resources and environment. Participants have established local eco-tourism ventures and other environmentally-friendly, income-generating activities, such as beekeeping, rabbitry and floriculture. In addition, a GEF regional project aims to preserve indigenous ruminant livestock, under increasing threat of genetic dilution and extinction, through a 12-year project to identify habitats, increase awareness and develop links with the private sector in the Gambia, Guinea, Mali and Senegal.

### CHEMICALS

As part of its capacity development and technical assistance work, UNDP focused its support to the Gambia in the foams sector. The MLF-funded programme provided assistance in the installation of safety systems, enhanced ventilation, methylene chloride metering system, trials, technology transfer and training. CFC-11 consumption phased-out by the project represented the entire consumption for the foam sector in the country. The Gambia is now participating in a regional methyl bromide (Me. Br.) phase-out project, implemented by UNDP, for low-volume consumers in Africa. This project provides policy strengthening assistance to prevent the introduction of Me. Br. use in the country.

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### Progress Towards Environmental Sustainability

Poor enforcement of regulations on natural resource utilization, inefficient management of forest reserves and dependence on wood-fuel by the poor have contributed immensely to forest degradation in Ghana. Lax enforcement of forestry regulations has left unchecked degradation related to crop and livestock production activities. Moreover, as a result of inefficient management of forest reserves and weak enforcement mechanisms, the loss of forests through fire, unsustainable logging practices, indiscriminate wood-fuel extraction and forest encroachment has accelerated.



A major challenge to formulating sustainable environmental programmes in Ghana is the ability to balance genuine environmental concerns with stakeholders. Such tensions underline the operational difficulties in achieving effective enforcement. Ultimately however, the overriding difficulty in formulating effective environmental policies is to obtain buy-in from stakeholders by involving them in the management of their natural resources.

Access to safe water rose from 49% in 1990 to 74% in 1998. However, there are wide disparities among regions and between urban and rural areas. Water shortages are frequent in many urban areas while rural areas experience seasonality of supply. In general, a greater proportion of rural dwellers lack access to adequate supply, as their communities lack ability to contribute to capital costs. Other constraints include the low borehole yield, poor quality of ground water, low levels of training of local maintenance staff with the result that boreholes remain out of service for longer than necessary. Obtaining spare parts is another challenge, as there is difficulty in establishing spare part outlets in remote rural areas.

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$5,781,046
<b>Total UNDP and Co-Finance:</b>	\$1,025,000
<b>Total MPU and Bilateral:</b>	\$918,382
<b>Total:</b>	\$7,724,428

**Cumulative Total ODS Phased-Out:** 388.0 ODP tonnes

The Government's on-going strategy to address environmental sustainability challenges is largely embodied in the National Environmental Action Plan (1990-2000), the Forestry and Wildlife Policy, the Forestry Development Master Plan (1996-2000), the National Land Policy, the Science and Technology Policy (2000), and the Action Plan for Science and Technology Management.<sup>1</sup>

## SPOTLIGHT

### LP Gas Bridges Gap to Socio-Economic Development<sup>2</sup>

Over 90% of all households in Ghana rely on traditional biomass – fuelwood and charcoal – as the primary fuel for domestic cooking and other productive activities. Heavy dependence on wood has resulted in increased local pollution, tremendous deforestation, and increased use of already scarce water supplies for cleaning cooking pots. Hajia Adamu, a commercial food vendor in the Savelugu district of northern Ghana, used 300-400 kg of firewood every day for her business until NewEnergy came to town.

Supported by the UNDP/Government of Ghana Liquefied Petroleum (LP) Gas Substitution Project and a financing grant of US\$ 300,000, NewEnergy visited Savelugu District in 2004 to promote new cooking stoves and LP Gas; Hajia Adamu embraced the initiative. The project's main strategy was to identify and support local champions from within the community who would replace 80-90% of their use of fuelwood with LP Gas. Hajia was selected because of the high visibility of her enterprise in the community and her personal interest in trying new technologies. As well as the necessary investment in LP Gas cylinders, ensuring safe operation of the equipment, and improving hygiene conditions, the project also provided various kinds of locally-produced cookers, technical training, and maintenance support. After two weeks of training, Hajia was able to successfully convert from use of 100% fuelwood to 95% LP Gas.

Thanks to LP Gas substitution, cooking time decreased considerably from 3.5 hours – 1.5 hours a day, leaving women more time to rest and prepare their children for school. Less water is used, reducing cooking times, and local pollution and indoor air quality have improved dramatically. Hajia is now an executive member of the Savelugu LP Gas Users Association, and serves as guide and mentor to local women on the use and potential of LP Gas substitution.

Ghana's principal development challenge of accelerating economic growth for poverty reduction, job creation, and accumulation of wealth implies high dependence on natural resource base. UNDP is working to support the formulation and implementation of national strategies, including legal frameworks, for environment protection and energy conservation. Public-private sector partnerships are being enhanced for effective management of natural resources. At the district level, the Government's capacity is being improved for environmental assessment, management, and monitoring.<sup>3</sup> The UN will contribute to the coordination of community level training on the most appropriate technologies such as renewable energy as one way of increasing access to rural energy services in order to support growth, equity and gender equality.<sup>4</sup>

**Daouda Toure, Resident Representative**

## PORTFOLIO

### FSSD\*

UNDP is supporting Ghana's efforts to achieve its development objectives through improved management of its wealth of natural resources. Projects such as the National Capacity Self-Assessment (NCSA) process, and the National Strategies for Environmental Resource Management enable Ghana to both ensure coherence in national environmental planning, and identify capacity requirements to fulfil the country's international environmental obligations. Linking economic and social concerns to the environment is central to both of these GEF and UNDP-supported initiatives.

### ENERGY

UNDP is supporting access to sustainable energy services to reduce poverty in Ghana. The country has embraced the use of the Multifunctional Platform, which provides rural communities with modern energy access. Similarly, UNDP's LP Gas Substitution for Wood Fuel project represents a significant contribution to energy efficiency and poverty reduction (see Spotlight), incorporating many aspects of the numerous energy initiatives currently underway in Ghana. In terms of Climate Change, under Ghana's strategy to combat climate change and reduce poverty, UNDP has supported several GEF-funded projects to introduce environmentally sound technologies, or develop strategies to enhance local and national capacities for energy conservation and efficiency.

### LAND

To support Ghana's efforts towards sustainable land management (SLM), UNDP is implementing a GEF-funded SLM project to mitigate land degradation and reduce poverty, proposed by a University of Ghana-led group of scientists and research institutes. The overarching goal of the project is to contribute to sustainable ecosystem-based integrated land management in globally, nationally and locally significant land resources in agricultural areas under threat of land degradation. This undertaking is expected to last until 2009 and result in greater ecosystem stability, enhanced food security, and improved rural livelihoods.

### BIODIVERSITY

UNDP is supporting Ghana to conserve and use its biodiversity in a sustainable manner. For example, Ghana's Lake Bosomtwe Basin is endowed with flora and fauna of national and global significance. UNDP is implementing a GEF-Funded Biodiversity Conservation Project to help conserve aquatic and terrestrial biodiversity in the basin, by supporting positive traditional conservation practices, and a community-based conservation programme.

### CHEMICALS

UNDP has been providing continuous support to Ghana's efforts to establish sustainable national institutions and effective strategies that enable the country to phase out ODS since 1991. Supported by funding from the Multilateral Fund of the Montreal Protocol, UNDP has worked with Ghana to implement 16 projects. In addition to institutional strengthening projects, UNDP is providing significant assistance in the refrigeration, solvents and methyl bromide sectors. Under the Stockholm Convention on POPs, UNDP is implementing a GEF-funded project that aims to build national capacity for elimination of Polychlorinated Bi-Phenyls (PCBs).

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<sup>1</sup>Ghana MDGR 2003 [http://www.undg.org/documents/3345-Ghana\\_MDG\\_Report\\_-\\_Report.doc](http://www.undg.org/documents/3345-Ghana_MDG_Report_-_Report.doc); <sup>2</sup>UNDP INFOLink, 'LP Gas Substitution for Wood Fuel in Ghana – Opportunities and Challenges', Nov. 2004; UNDP Ghana Document: Project LPG Substitution for wood fuel.; <sup>3</sup>[http://www.undp-gha.org/Programme\\_Activities/Environment.htm](http://www.undp-gha.org/Programme_Activities/Environment.htm); <sup>4</sup><http://www.undg.org/content.cfm?id=327>; <sup>5</sup>Frameworks and Strategies for Sustainable Development



### Progress Towards Environmental Sustainability

Political instability, civil wars, and displacement of large indigenous populations have given rise to new environmental problems in Guinea. Sporadic settlement, uncontrolled and unchecked construction has led to a widespread disorganized and insecure housing in urban and rural areas. The housing sector lacks a national housing policy or programme, thereby weakening its impact, as opposed to other sectors that implement coherent and consistent policies that ensure sustainable outcomes.

Efforts towards environmental sustainability in Guinea include identifying investment sources, increasing the influx of aid and efficient environmental management. Guinea also aims to maintain awareness of the process of globalization while implementing its country programmes. The reinforcement of human and institutional capacity is a major priority and seen as essential in order to satisfy the basic needs of the population while preserving the environment.

Guinea is on track to achieve its MDG water targets, thanks to local and international support. However, these efforts, which include the financing of water systems, the management of water points in rural areas and of water supply in urban areas, need to continue in order for Guinea to stay on track in achieving its water goals. Ensuring the availability of safe drinking water is a major priority, as much remains to be done to improve sanitation.

The Ministry of Housing needs to take on a central role in devising the country's national strategy for poverty reduction by improving the financial and technical services of the State and by ensuring civil society and private sector participation in its efforts to provide secure tenure. If the priority actions outlined in Guinea's Poverty Reduction Strategy Paper are enforced in line with the goals and targets envisioned for environmental sustainability, it is estimated that Guinea will most likely be able to achieve sustainable solutions to its environmental problems by the target dates of 2010 and 2015.<sup>1</sup>

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$34,412,500
<b>Total UNDP and Co-Finance:</b>	\$30,000
<b>Total MPU and Bilateral:</b>	\$69,890
<b>Total:</b>	\$34,512,390

**Cumulative Total ODS Phased-Out:** 5.0 ODP tonnes

## SPOTLIGHT

### New Rice Variety Raises Incomes and Food Security<sup>2</sup>



The staple diet in West Africa is rice. However, the African variety of rice traditionally planted in Guinea requires a large amount of effort relative to the crop yield, which is not sufficient to sustain the farmers and their families. To try to increase yields, African farmers turned to Asian varieties, but these were vulnerable to the different soil and climatic conditions of Africa, easily became overrun with wild plant growth, and required new land to be continuously cleared for fields.

With support from UNDP, the Government of Japan and other partners, the West Africa Rice Development Association developed a new strain, a cross between the Asian and African varieties.

Known as the "New Rice for Africa" or Nerica, the new rice combines some of the best qualities of Asian and African strains, but has been bred specifically for the African soil and climate. Faster growing and better tasting, Nerica is providing larger yields and higher earnings to local farmers. To improve the dissemination of Nerica and contribute to food security across Africa, UNDP and Japan are supporting the regional Africa Rice Initiative, launched with US\$ 15 million in 2002.

Following only a few years of trials, the new rice has already boosted the incomes of subsistence farmers in Guinea and increased the sustainability of their land. The project stands as a major success of the partnership between Africa and Japan. In addition, Nerica has become very popular among women growers. A second project, with a total cost of US\$ 80,000 financed by Japan, aims to reduce the time women spend working on winnowing, drying and dehulling the rice, as well as on marketing and environmental protection.



UNDP Guinea works closely with the Guinean government to integrate environment in all national development programmes. UNDP Guinea has launched a call to both national and international development agencies to consider and continue to consider the environment as a priority. For its part, the UNDP and its Country Cooperation Framework (2002-2006) considers environmental sustainability as a priority. In particular, UNDP has launched a number of initiatives to enable Guinea to take appropriate measures to combat poverty and reduce harmful effects from volatile, climatic variation and enhances mainstreaming of biodiversity conservation into local and national level sustainable development planning allow for the establishment of a national system of protected areas.



## PORTFOLIO

**Mbaranga Gasarabwe, Resident Representative**

### ENERGY

UNDP is supporting Guinea to adapt to the impacts of climate change. For example, with GEF-funding, UNDP is assisting in the development of a National Adaptation Programme of Action to enable the identification of urgent measurements needed to mitigate the harmful effects of climatic variations, and how to incorporate the necessary changes into national development planning. In addition, as part of UNDP's capacity building efforts, the Centre of Technology Transfer provides access to knowledge and information and leverages national expertise regarding critical impacts of climate change on the fisheries and agriculture sectors.

### BIODIVERSITY

In support of the conservation and sustainable use of biodiversity in Guinea, UNDP is implementing a GEF-funded project to conserve the biodiversity of the Nimba Mountains. The project uses a participatory approach to integrated ecosystem management, and enhances the mainstreaming of biodiversity conservation into local and national level sustainable development planning. Eventually it will establish a national system of protected areas. To facilitate improved monitoring of biodiversity, together with funding from the GEF, Guinea is receiving technical assistance from UNEP and UNDP to establish an information exchange centre to catalogue and evaluate existing levels of biodiversity in the region.

### CHEMICALS

UNDP is assisting in the implementation of two projects in Guinea's refrigeration sector. The support will develop a refrigeration management plan update that provides the required supplementary training and spare parts to the national refrigerants recovery and recycling effort. Guinea is also participating in a regional halon management project for 6 French-speaking African countries that will allow all participants to effectively manage their critical uses of halons, an ODS used for fire protection purposes.



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## GUINEA-BISSAU



MDG7

## Progress Towards Environmental Sustainability

Demographic and economic trends in Guinea-Bissau reveal that the fight against poverty cannot be effectively undertaken at the expense of sustainable management of natural resources. It is in this light that the Poverty Reduction Strategy Paper has defined the environmental dimension as an integral part of an enlarged vision for human development in Guinea-Bissau. Environmental degradation is therefore regarded as one of the penetrative obstacles to poverty reduction in the country.

Forests cover 5.5% of Guinea-Bissau's national territory and are increasingly being subjected to damage. While estimates of deforestation rates vary, all reflect a similarly high and worrisome degree. A national policy tackling the exploitation of forests and conservation of nature and resources is lacking.

Dependence on wood and charcoal as sources of energy is widespread. Transportation and many economic activities rely on imported petroleum products.

Poverty in Guinea-Bissau is also marked by the population's very limited access to safe drinking water. Only 54% of the population, urban and rural, had access to drinking water in 2002 – 34% of urban inhabitants, 68% of rural inhabitants, and 36% of semi-urban inhabitants had access to safe drinking water. While coverage has increased since the country's independence, urban areas enjoy less access to water than rural areas, mainly because of the defective state of water networks. Only 29% of drinking water is available to the population.

## QUICK FACTS

## CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$649,980
<b>Total MPU and Bilateral:</b>	\$307,900
<b>Total:</b>	\$957,880

**Cumulative Total ODS Phased-Out:** 8.8 ODP tonnes

When seen within the context of poverty, data reveal that almost 52% of the poor population has access to safe drinking water. It is worth noting, however, that only 58% of the population considered not poor has access to water. These figures reflect the desperate need for improved implementation of national environmental legislation, as well as strengthened policies and programmes that target environmental problems more effectively and at an affordable cost.<sup>1</sup>

## SPOTLIGHT

Mine Clearance for Environmental Security<sup>2</sup>

After harvesting some cashews in a forest, Quinta Nanque was preparing to return home when she stepped on a landmine and lost her left leg. Five years after a civil war devastated the country, land mines are still taking a toll in Guinea-Bissau. Not only do land mines affect people's quality of life in the country, they also hinder social, economic and environmental development. People are unable to access to wells, roads, to farm their fields, and to trade their goods at market. Quinta's experience ignites fear and has severe impacts on the cashew harvesting industry.

However, the country is following a strategy to rid the capital, Bissau, of mines by 2005 and the rest of the country by 2009. At the end of the war in 2000, UNDP provided the Government with a significant amount of equipment and training. Additional assistance from Canada, the EU, Germany, the Netherlands and the United States, established a National Centre for Coordinating Mine Action Activities. Sixteen zones throughout the country were identified as highly likely to have landmines and the authorities prepared an ambitious plan to remove the "silent killers."

The project relies on two national NGOs – LUTCAM and HUMAID – to conduct mine clearance operations. From November 2000 to July 2004, the two organisations cleaned up 725,535 square metres of land, removing 2,587 mines and approximately 30,000 explosive devices. By creating safe zones, the people of Guinea-Bissau are now willing to return to their fields for agriculture and sustainable development without fear of potentially being maimed or even losing their lives as a result of the mines. In addition, indigenous wild animals are also protected following the clearance of the mines. The mine clearance programme is also working to help victims like Quinta Nanque set up kiosks to sell goods at a market.

While Guinea-Bissau has numerous natural resources, problems of deterioration of environmental resources impact the entire country. There is destruction equivalent to 2 to 3% of forest cover each year under the combined effects of the human interventions. Deforestation and accompanying bush fires are serious issues facing the country while salination of groundwater destabilise the soil. Water contamination from domestic refuse is one of the areas which is receiving support from the UNDP office through the hydraulic water system in Gabu village which provides new measures for ensuring adequate water supply. UNDP is also assisting GB to meet its obligations under UNFCCC, UNCCD, and UNCBD.<sup>3</sup>



**Michel Balima, Resident Representative**

## PORTFOLIO

### WATER

UNDP is supporting effective water governance in Guinea-Bissau to increase access to safe drinking water and sanitation, one of the targets of the MDGs. One example is the establishment of a new hydraulic water pumping system in the village of Gabu, which is ensuring an adequate water supply, sanitation and sustainable livelihoods. 145 boreholes have been drilled and the local communities will service and maintain the pumping system to ensure its sustainability. As a result, more time is available for constructive, income-generating activities that contribute to poverty reduction. UNDP and the UNCDF collaborated in developing this project.

### ENERGY

With funding from GEF, Guinea-Bissau has prepared its First National Communication on Climate Change to the UNFCCC. The Government is currently conducting vulnerability studies that review coping mechanisms to adapt to climatic variation. Accordingly, a National Adaptation Programme of Action is being drafted to address these impacts, also funded by GEF.

### BIODIVERSITY

To enable Guinea-Bissau to fulfil its commitments to the Convention on Biological Diversity, GEF funded the development of the National Biodiversity Strategy and Action Plan to strengthen existing capacity to conserve biodiversity and ensure that biodiversity is incorporated into national planning. In pursuit of this strategy, selected priorities are being targeted through regional and national workshops. Local communities, public and private sector institutions, and national and international NGOs participated in the prioritisation and formulation process of the strategy.

### CHEMICALS

UNDP's assistance initiative to reduce ODS in Guinea-Bissau has been made possible by funding from the Multilateral Fund of the Montreal Protocol. The programme provides incentives to industrial and commercial end-users to convert or retrofit their installations to non-CFC refrigerants, and supplies basic servicing tools and equipment. In addition, recovery and recycling machines for servicing workshops are made available in tandem with a rigorous training programme for technicians.

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<sup>3</sup>MDGR 2004 [http://www.undg.org/documents/5527-Guinea-Bissau\\_MDG\\_Report.pdf](http://www.undg.org/documents/5527-Guinea-Bissau_MDG_Report.pdf); <sup>2</sup>UNDP Newsfront, "Guinea-Bissau seeks help to be first in Africa to eliminate landmines", 14 Jan 2004: <http://www.undp.org/dpa/frontpagearchive/2004/january/14jan04/>; UNDP Choices Magazine, "Guinea-Bissau: Clearing Landmines" Dec 2004: <http://www.undp.org/dpa/choices/2004/dec/guineabissau.html>; <sup>1</sup>[http://www.undg.org/documents/911-Guinea-Bissau\\_CCA\\_-\\_Guinea-Bissau\\_2001.doc](http://www.undg.org/documents/911-Guinea-Bissau_CCA_-_Guinea-Bissau_2001.doc) <http://www.gw.undp.org/environnement/index.html>

### Progress Towards Environmental Sustainability

Certain significant factors continue to put pressure on natural resources and compromise effective implementation of sustainable development strategies in Kenya. They include limited government capacity for environmental management and insufficient institutional and legal frameworks for enforcement and coordination. Despite a strong government commitment and active programmes against illegal deforestation, large-scale illegal logging, wildlife poaching and trade pose a significant threat to Kenyan biodiversity.



Widespread poverty in rural areas has led to over-exploitation of natural resources. Deforestation and unsustainable agriculture is reducing the vegetal capital stock, soils' water retention capacity and increasing erosion. In Kenya, the total area of gazetted forest reserves is 1.64 million ha, of which 1.24 million ha constitute indigenous forests (about 2% of the land area of Kenya).

Limited access to safe drinking water has typically been more problematic in rural areas than in urban communities. For example, the overall rural access rate to an improved water source in 2000 was 44% compared to 90% in urban areas. At the national level during the same year, only 48% of the Kenyan population had access to an improved water source.

Also worrisome is the high incidence of diseases caused by poor water supply and sanitation. They include life-threatening diseases such as diarrhea, intestinal worms, trachoma, and cholera. Unfortunately, there has been no improvement in access to safe drinking water in the past decade (1993-2003). Most of the Kenyan population drinks unsafe water from unprotected wells and springs. Despite the success in reducing child mortality from diarrheal diseases, the overall health burden has not decreased over the decade. Improvements in safe water supply, and in particular in hygiene and sanitation, could reduce the incidence of diarrhea by about one fifth and the number of deaths due to diarrhea by more than half.<sup>1</sup>

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$11,119,000
<b>Total UNDP and Co-Finance:</b>	\$5,328,826
<b>Total MPU and Bilateral:</b>	\$1,432,057
<b>Total:</b>	\$17,879,883

**Cumulative Total ODS Phased-Out:** 10.0 ODP tonnes

## SPOTLIGHT

### Kenya Adopts its First Policy to Assist the People in the Drylands<sup>2</sup>



Only one fifth of the landmass of Kenya is designated by the Government as being of "high potential". The rest is arid and semi-arid – the "drylands" – considered since colonial times to be unproductive, leading successive governments to pursue policies benefiting only the high potential areas, in the belief that the rest of the country was of little value. As a result, people living in the drylands have been increasingly marginalized. This is unfortunate as most of Kenya's game parks are in these areas. Tourism has historically been Kenya's highest earning export sector. It is now recognized that much of the semi-arid lands have a capacity for improved agriculture, while a large proportion of the country's livestock are found in the drylands as a whole. The results of years of ignoring the drylands are now being felt nationally. As the so-called high potential areas are becoming increasingly crowded, people are now moving to the drylands, where their experience of farming in well-watered areas cannot prepare them for the rigors of drylands farming. Conflicts are increasing among the drylands' marginalized communities, and parts of the borders are becoming lawless.

UNDP Kenya, supported by UNDP's Drylands Development Centre has helped the Government to draw up a policy for the drylands. The process has been very successful – the Government, recognizing that development of 80% of its land area requires the participation of all sectors, civil society and communities, established a consultation process as to ensure that all government sectors were involved, along with representatives from civil society. The resulting policy identifies the need for much more investment in the dry areas of the country, including the provision of basic services, the improvement of the road network and improved connections with the internal Kenyan market. For the first time in its history, Kenya now has a policy for its arid and semi-arid lands.



UNDP programmes in Kenya support the identification of natural resource management and biodiversity knowledge gaps, while contributing to the coordination of community level training. These programmes will help Kenya create policies and legislation for the protection and use of environmental and natural resources.<sup>3</sup> Shared informational networks have “created a wide stakeholder and partner’s base and facilitated linkage, participation and empowerment with/of individual citizens to better manage and protect the environment, improve their livelihoods and to alleviate poverty.”



**Paul André de la Porte, Resident Representative**

## PORTFOLIO

### FSSD\*

Kenya has received UNDP financing to cover four strategic initiatives that focus on covering knowledge gaps and capacity constraints to economic development and sustainable environmental management. Participatory planning through the development of a standardized “Tool Kit” helps communities shared practices and lessons learned.

### WATER

Sanitation, waste management and income generation are the current focus of Kenya’s effort to further reduce poverty while maintaining a sound environment. Policy and legislation are useful tools that will allow these initiatives to come to fruition and be further replicated in cities outside of Nairobi. This project is made possible through UNDP funding.

### ENERGY

Six energy projects are currently underway that provide Kenyans with the power and tools to achieve anti-poverty strategies and enhance their social and economic livelihoods. Removing barriers to access is the first step in this direction. Two projects impact small and medium enterprises and the biomass sector.

### CHEMICALS

Aiming at improved performance in complying with its obligations under the Montreal Protocol, Kenya has embraced UNDP supported initiatives that contribute to development of stronger policies and institutional environment which in turn, support multiple strategies, programmes and projects. UNDP also supports the Government in its efforts to phase out methyl bromide consumption in horticulture with emphasis on adoption of an integrated pest management approach. In other sectors, preparation assistance is being provided for the development of a full scale solvent sector phase out plan.



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### PARTNERS

**Some of our Partners working with UNDP and the Government in Kenya**

DFID	JICA
SIDA	FAO
Government of Belgium	Government of Finland
UNEP	Government of Norway
USAID	Nordic Funds
The Netherlands Government	GTZ
Japanese Embassy	European Union

<sup>1</sup>MDGR 2003 <http://www.undp.org/mdg/kenya.pdf>; <sup>2</sup>Philip Dobie, Director UNDP Drylands Development Centre; <sup>3</sup><http://www.ke.undp.org/Energy%20and%20Environment.htm>; <sup>4</sup>Frameworks and Strategies for Sustainable Development

## SPOTLIGHT

**Engaging Young People in Environmental Management for Poverty Reduction<sup>1</sup>**

With 80% of Lesotho's population living in rural areas, people's livelihoods are dependent to a large degree upon the quality and the sustainability of the country's natural resources. Lesotho's economic boom leading up to 1998 was followed by unsustainable land management practices and rapid environmental degradation. Recognizing this threat, Lesotho's National Environment Secretariat adopted a youth-oriented approach to combating degradation, while simultaneously promoting income-generating activities.

In 1996, a joint initiative between UNDP and the Government established the National Environment Youth Corps Project (NEYC) to provide employment opportunities for Lesotho's young people. Total funding came to over US\$ 3.7 million, with contributions from the Government, the Netherlands, South Africa and the United Kingdom. This initiative was borne out of the realisation that Lesotho needed to address the socio-economic and environmental problems afflicting the country, and ensure their sustainability in future generations. The NEYC programme raised awareness about land degradation, and taught young people how to rehabilitate degraded lands through soil conservation methods and tree planting. The programme also addressed poverty alleviation by engaging young people in income-generating activities, such as produce and sale of tree seedlings, recycling, carpentry, stone cutting, and sculpture.

As a result of this training, participants in the NEYC, renamed "Environmental Management for Poverty Reduction" in 1999 to better reflect the goals of the organisation, successfully established tree nurseries at the community level, and seedlings were produced for sale to farmers in the surrounding and urban areas. In addition, the young people supported the community by constructing environmentally-sound drainage systems, and maintained secondary and tertiary public and individual roads.



## STRATEGIES

## QUICK FACTS

**CURRENT PORTFOLIO BUDGET**

<b>Total UNDP-GEF and Co-Finance:</b>	\$12,837,000
<b>Total UNDP and Co-Finance:</b>	\$5,789,864
<b>Total:</b>	\$18,626,864

**Cumulative Total ODS Phased-Out:** 3.6 ODP tonnes



"Lesotho has been experiencing rapid environmental degradation despite all efforts that have been made including those from UNDP. There is a combination of causal factors: loss of diversity through overgrazing, overstocking and increased siltation of our wetlands through soil erosion. It is time to take better care of our natural resources - way beyond playing lip-services to international protocols. It is high time to translate words into action. In essence, it is timely now for Lesotho to access the GEF to implement the PRSP. This is not an option, it is a necessity."

**Hodan Haji-Mohamud, Resident Representative**

## PORTFOLIO

### FSSD\*

UNDP is supporting Lesotho's efforts to develop strategies to integrate environmental considerations into national planning. For example, the GEF-funded National Capacity Self-Assessment (NCSA) process is a comprehensive assessment, including an in-depth analysis of the country's existing capacities and capacity development needs, and is the first step to determining what immediate and long-term actions are needed to meet the obligations of the Rio conventions, and Lesotho's national development objectives. The now closed Environmental Management project was a precursor to the NCSA and addressed links between energy and poverty reduction.

### ENERGY

To support a reduction in GHG emissions and increase access to energy services in rural areas, UNDP is implementing a GEF-funded project to promote renewable energy as a substitute for fossil fuels used in rural areas of the country. Project activities include removing barriers to the wide-scale implementation of renewable energy technologies, assisting in the development of a renewable energy market in remote rural areas and facilitating the use of renewable energy for productive uses.

### BIODIVERSITY

UNDP is working to support biodiversity conservation and sustainable use in Lesotho. For example, the GEF-funded Mountain Biodiversity project created a network of small protected sites, targeting specific biodiversity values, and provided policy-related support, education and awareness activities, and field conservation demonstrations. During the course of this now closed project, Lesotho developed the National Biodiversity Strategy and Action Plan, also funded by GEF, which built upon the experiences learned at the local level and seeks to implement a national-level response plan to further protect Lesotho's biodiversity.

### CHEMICALS

UNDP supported Lesotho's efforts to achieve its targets as set out in the Montreal Protocol for a period of 3 years, with funding from the Protocol's Multilateral Fund. The initiative developed and implemented a national programme for recovery and recycling of refrigerants in the refrigeration and air conditioning sectors.



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### PARTNERS

**Some of our Partners working with UNDP and the Government in Lesotho**

Government of UK  
 Government of The Netherlands  
 Government of South Africa  
 GTZ  
 DED



### Progress Towards Environmental Sustainability

Liberia possesses a rich variety of natural resources, including gold, diamonds, iron ore and vast tropical forests and rich biodiversity. The uncontrolled exploitation of these resources in recent years and progressive expansion of agriculture, however, have given rise to increasing cause for concern. Prominent environmental concerns are: deforestation due to logging, shifting cultivation, firewood collection and charcoal production, and loss of biodiversity, exacerbated by widespread illegal hunting and consumption of “bush-meat”; increasing erosion, run-off and contamination of rivers and streams; marine and air pollution; and coastal erosion.

Forest cover has declined from 4.1 million hectares in 1992 to 3.481 million hectares in 2000/01. The area protected to maintain biodiversity has increased slightly from 0.12 million hectares in 1983 to 0.192 million hectares in 2001/2002. Per capita energy use, a proxy for energy efficiency, declined by 72%, from approximately 21.3 kilowatt/hour in 1990 to 5.55 kilowatt/hour in 2001. The target set for 2015 is to achieve at least the 1990 level.

Access to improved water sources (pipe borne and hand pumps) declined from 58.4% of households in 1997 to 26% in 1999 and has deteriorated further since then. Wide disparities in water quality exist, with only 4% of rural households having access to safe drinking water, compared to 25% of urban households. Liberia aims to increase access to safe drinking water to 63% of the total population by 2015. However, the proportion of households with improved sanitation more than doubled from 16.9% in 1997 to 36.3% in 1999/2000. Liberia's national target is for 67.9% of households to have improved sanitation by 2015.

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$256,000
<b>Total UNDP and Co-Finance:</b>	\$650,000
<b>Total:</b>	\$906,000

54% of Liberians own their homes, with 65.4% ownership in rural areas and 30.3% in urban centers. It is important to note, however, that many homes were abandoned and/or destroyed during the civil war, especially in rural areas and that half the population of 2.9 million are homeless, many of whom are living in camps for internally displaced people and refugees.

Challenges to achieving MDG 7 in Liberia include: inadequate coordination among agencies dealing with the environment; absence of a national housing policy; and limited capacity for environmental impact assessment, biodiversity conservation and efficient energy use.<sup>1</sup>

## SPOTLIGHT

### Legal Protection to Enable Environmental Sustainability

The 1989-2003 civil war in Liberia left all areas of life and sectors of the economy shattered. To accommodate internally displaced persons in relatively safe areas of the country, massive areas were cleared through uncontrolled logging, and the resulting concentration of people caused severe land degradation and loss of biodiversity. Improper disposal of refuse and the deceased, as well as massive use of chemicals for gold and diamond mining upset the balance of nature. To find a way out of this quagmire of environmental degradation, UNDP assisted Liberia in establishing the legal framework necessary to protect the environment.

Liberia is identified as having the largest remaining area of natural ecosystems in West Africa. Sapo National Park contains an immense block of forest cover – approximately 42% - of the total Upper Guinea Forest region, extending from Sierra Leone through Guinea, Côte d'Ivoire, Liberia, Ghana and Togo to Nigeria. However, lack of a permanent legal structure including environmental concerns in the country had limited Liberia's previous attempts to preserve and promote the sustainable use of biodiversity. In 1998, UNDP provided technical and legal support for sustainable management of the environment, with a modest US\$ 10,000 budget, to assess the impact of the conflict on the environment. UNDP then spearheaded the establishment of an “Environment Theme Group” to coordinate and formalise an approach to handling environmental matters.

Accordingly, three critical acts of legislation were drafted and approved by the National Legislature of Liberia in 2002: the National Environmental Policy, an Act Creating the Environment Protection and Management Law, and an Act Creating the Environment Protection Agency. The Environment Protection Agency is now operational and a draft on the state of environment report has been prepared; UNDP is now supporting its completion.



The mission is to help Liberia use its biodiversity to meet the requirements of present generations without endangering the potential of future generations. Specific goals include protection of critical ecosystems, rational and sustainable use of biodiversity and equitable sharing of the benefits of these natural resources.<sup>2</sup>

"UNDP has actively engaged and supported the Government in establishing the framework for sustainable management of the environment in Liberia. In collaboration with partners, technical, financial, and logistical support has and continues to be provided to address policy, legal, legislative, structural, and operational issues related to sustainable environmental management."

**Abou Moussa, Resident Representative**

## PORTFOLIO

### BIODIVERSITY

UNDP is assisting the Government to conserve biodiversity in Liberia, through the GEF-funded development of a National Biodiversity Strategy and Action Plan, completed in 2004. The process included an evaluation of the status of biodiversity in Liberia, defined guiding principles, goals and objectives of biodiversity conservation in the country, and sets out concrete measures to implement reform in the forestry sector, alleviate poverty through equitable distribution of natural resources and tackle coastal erosion and mangrove destruction.



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### PARTNERS

**Some of our Partners working with UNDP and the Government in Liberia**

Conservation International  
Fauna and Flora Internacional  
UNEP

<sup>2</sup>MDGR 2004 <http://www.undg.org/access-file.cfm?cat=79&doc=5565&file=7132> ; <http://www.lr.undp.org/environment.html>

## MADAGASCAR

## SPOTLIGHT

**Sustaining Biodiversity through Forest Conservation Efforts<sup>1</sup>**

The biodiversity of the Anjozorobe forest corridor is a priority area for conservation, but is also a source of food, fuel and shelter for local communities. Its proximity to the capital and high demands for fuelwood and other forest products increases the threats. Extensive legal and illegal logging, and unsustainable harvesting of environmentally sensitive fauna are major threats to the biodiversity. Lack of support mechanisms, ineffective land tenure systems, the increasing needs of a young population, and systemic poverty magnify the already vulnerable situation.

In order to manage human and natural resource issues in the Corridor to reduce degradation, FANAMBY, a local NGO, WWF, and the Government are working together to create and test the first legally constituted Regional Forest Reserve (RFR) in Madagascar. With US\$ 1.075 million in financing from the GEF and additional co-financing from the other parties, the reserve will empower local populations to manage their resources through a 3-tier management structure including all key stakeholders and government agencies. The participants will manage the RFR by strictly enforcing zoning restrictions and providing community-based incentives to ensure the sustainability of the region. For example, communities will only have management rights as long as they practice sustainable use and protect the reserve.

The reserve will bring increased environmental benefits to local communities and the private sector, for example through cultivation of aromatic plants and Arabica coffee beans for sale in local and global markets. Women, whose primary occupation is agricultural production, will also benefit from increased incomes. The project's executive committee has already approved pre-zoning results and proposed steps for endorsement by the local communities and authorities with the completion of an Anjozorobe database. A partnership with the Missouri Botanical Garden has generated a comprehensive inventory of the reserve's fauna, and a diagnostic and macro-environmental study on the sustainable production potential of four promising agricultural products.



## QUICK FACTS

**CURRENT PORTFOLIO BUDGET**

<b>Total UNDP-GEF and Co-Finance:</b>	\$26,254,388
<b>Total:</b>	\$26,254,388





"The Malagasy Government has engaged in strategic orientation for the development of Madagascar through appropriate actions and initiatives. UNDP is delighted to bring its support to Madagascar and encourages particularly the emergence of local and community initiatives, the contribution of women, the development of national NGOs and the efforts of the Government to link conservation and development. The Malagasy commitment to respect its incomparable biodiversity is an indication of its will to fight against poverty. UNDP's mission is to provide assistance in order to make compatible economic development with respect to the environment. We are confident that Madagascar is on the right track."

**Bouri Sanhouidi, Resident Representative**

## PORTFOLIO

### BIODIVERSITY

The conservation and sustainable use of biodiversity in Madagascar is being supported by UNDP. For example, the Anjozorobe Forest Corridor project, funded by GEF, promotes participatory community-based conservation, the sustainable use of non-timber forest products, appropriate land tenure security, and alternative income-generation activities for local communities. The conservation site will be operated under a co-management system involving local communities, NGOs and government institutions. The Spotlight section provides further details on this initiative. At a strategic level, the Environmental Action Plan in Madagascar seeks to buttress efforts to maintain the pristine coastal and marine biodiversity surrounding the island. The project is funded by GEF.



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### PARTNERS

**Some of our Partners working with UNDP and the Government in Madagascar**

GSB's Partners  
WWF

### Progress Towards Environmental Sustainability

The Government of Malawi developed a Water Resources Management Policy and Strategy in 1994 to ensure that a large proportion of the population has access to safe drinking water. The backbone of the strategy was community involvement in the management and maintenance of water supply systems in their areas.

Access to safe drinking water available within one kilometer has not changed much since 1990. In 1985, 47% of the rural population and 85% of the urban population (the equivalent of 52% of the entire population) had access to safe drinking water in Malawi. In 1992, access to safe drinking water, especially in the rural areas, was lower than in 1985, but in 2000, coverage increased to 62%.

On the basis of the 1985 estimates, Malawi had aimed to increase the number of people with access to safe drinking water from 52% to 78% by 2015. The country coverage, according to 2000 estimates, was 62% and access increased by about 1% per annum. Assuming this increase is sustained, it would take 16 years to achieve the target of 78%. However, this MDG water target could be achieved since the Government plans to increase the number of boreholes and water schemes, and to intensify the maintenance of existing boreholes and water schemes by ensuring active involvement of communities in water management.

Currently, there are 15,287 hand pumps, sufficient to serve 4 million people. There are also 56 rural gravity-piped water supply schemes with over 10,000 taps that could reach an additional 1.2 million people. Unfortunately, about 40% of these taps are dysfunctional, which means that the number of people served under this scheme could be less than estimated.



## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$9,280,000
<b>Total UNDP and Co-Finance:</b>	\$70,000,000
<b>Total MPU and Bilateral:</b>	\$3,156,324
<b>Total:</b>	\$82,436,324

**Cumulative Total ODS Phased-Out:** 151.2 ODP tonnes

Still, the planned development of new rural piped water schemes, construction of communal water points in urban areas, rehabilitation of existing schemes and maintenance of boreholes by communities are all expected to contribute towards meeting the MDG targets for environmental sustainability. Increased community involvement in the planning, construction and maintenance of water supply systems will make the achievement of the target of halving the number of people without sustainable access to safe drinking water by 2015 more likely.<sup>1</sup>

## SPOTLIGHT

### Project synergies promote Methyl Bromide reduction and HIV/AIDS Awareness<sup>2</sup>

The insecticide methyl bromide (MeBr) has long been used by farmers in the heartlands of central Malawi to prevent insects from damaging their tobacco crops, the country's chief foreign exchange earner. Until 2000, rural Malawian farmers, however, knew very little about the long-term adverse environmental effects posed by this ozone-depleting substance and Malawi stood as the second-largest user of MeBr in Africa.

Beginning in 2000, UNDP, the Government of Malawi and the Agricultural Research and Extension Trust (ARET) collaborated on a US\$ 2.99 million project approved under the Montreal Protocol Multilateral Fund. The project has aimed to phase-out 185 metric tonnes use of MeBr. Grower response has been very positive and as of 1 January 2005, Malawi instituted a 100% ban on imports and consumption of MeBr.

Local production of materials further encouraged alternatives to MeBr, replacing it primarily with the floating tray system (FTS). A number of small-scale private sector enterprises are working with ARET to research the viability of using various forms of agricultural waste to mass produce the substrates required for the FTS process, thereby encouraging local and regional market potential for small businesses. Reuse of this waste, rather than its disposal through burning, contributes to reducing local air pollution.

Building upon the project's outreach potential in rural areas, UNDP saw the opportunity to launch simultaneous efforts to support the national fight against HIV/AIDS, a serious concern for Malawi. Drawing upon the project's field training days, the project offered the dissemination of HIV/AIDS related messages developed by national stakeholders and funded by the UNDP HIV/AIDS programme. National project members also collaborated with a group of farmers involved with the Malawi National Aids Commission to promote awareness and ultimately better protect the agricultural sector's workforce.



Malawi's economy is natural resource based. Thus, the destruction of natural forests and woodlands by resource-poor households as an intermediate strategy threatens the very source of livelihood.<sup>3</sup> "UNDP will continue to support efforts of the Government on energy and environmental matters and will be supporting social economic empowerment for poverty reduction where we have sufficient provision to energy projects at the village level. Malawi has made significant progress in introducing new technologies and bringing about awareness of the phase out of methyl bromide and issues related to the protection of the ozone layer."

**Michael Keating, Resident Representative**

## PORTFOLIO

### FSSD\*

UNDP is supporting the Government of Malawi to build capacity in environmental policy and planning, and to fulfil its conventions to international environmental agreements. The GEF-funded National Capacity Self-Assessment (NCSA) process reviews the international conventions on biodiversity, climate change and desertification to ascertain Malawi's capacity to address issues arising from the three conventions. The process includes consultations and leadership through a designated coordinator, and aims to achieve the highest political involvement to implement its recommendations.

### ENERGY

UNDP is supporting several initiatives in collaboration with the Malawi Government to promoting the use of renewable energy and GHG reduction. One GEF-funded project focuses on removing barriers to entry into the renewable energy market, while another is paving the way for training and implementation of renewable energy technologies, such as solar photovoltaics in homes, schools and government offices. Donors included GEF, UNDP, IDA and the GoM. UNDP's GEF-funded climate change projects focus on preparing National Communications to the UNFCCC, and in assessing needs for adaptation to climate variability.

### CHEMICALS

UNDP, in close cooperation with the Government of Malawi, is working to support its Montreal Protocol phase-out objectives for methyl bromide by implementing a national programme for the phase-out of all non-essential and non-quarantine and pre-shipment applications of this ODS used as a fumigant in agricultural production. In addition to the successful transfer of technical assistance, training and provision of materials and equipment, the impact of this project goes beyond the achievement of phase-out targets. Having adopted a flagship integrated approach, the project has encouraged South-South cooperation by facilitating the exchange of experiences with similar projects in the region, as well as is Argentina. In addition, the extensive outreach efforts enabled it to provide support to the national HIV/AIDS programme (see Spotlight). UNDP is also finalizing the implementation of a project in the foams sector that will phase-out CFC-11 in the manufacturing sub-sector.



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### PARTNERS

**Some of our Partners working with UNDP and the Government in Malawi**

JICA  
DFID  
GTZ  
EU  
World Bank  
IDA

## SPOTLIGHT

Multifunctional Platform Furthers the MDGs<sup>1</sup>

In Mpoti, Mali's central region, and Sikasso in the south, women work on time- and labour-intensive activities, such as cereal milling and de-husking rice, to support the family. These time-intensive activities contribute to their low

incomes and lack of time for health care. The responsibility of children, primarily girls, to assist their mothers in domestic activities often also prevents them from regularly attending school.

The multifunctional platform project started in 1993, to promote women's development and alleviate poverty, and has cost US \$10 million. Supported by the UNDP, the 7-year project has installed 394 platforms to-date, assisting roughly 80,000 women. The platform consists of a small diesel engine mounted on a chassis, to which a variety of end-use equipment can be attached, such as a grinding mill.

In the 12 villages of the Mpoti and Sikasso regions, the platforms help women save on average 2.5 hours per day, which can be spent on other income-generating activities. This has led to an increase in the average annual income of US\$ 68, representing a 56% increase in rural Mali. The time saved has led to an improvement in the girl-to-boy ratio in primary school, the dropout rates, and the proportion of school children completing primary education. Women have also been able to improve their health, as the platform project led to a rise in the number of prenatal visits to health clinics. The multifunctional platform project has thus led to development outcomes that aid the achievement the MDGs in Mali, from the goal of reducing poverty, to improving maternal health, to increasing primary education.

By allowing women's associations to purchase the platform, choose which modules to install and collect fees for its use, the project has been successful since it empowers women and provides services demanded by the community.

ENERGY  
QUICK FACTS

## CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$3,195,000
<b>Total UNDP and Co-Finance:</b>	\$7,060,000
<b>Total MPU and Bilateral:</b>	\$65,455
<b>Total:</b>	\$10,320,455

**Cumulative Total ODS Phased-Out:** 6.3 ODP tonnes



In a number of countries in the sub-region including Mali, extreme poverty is exacerbated by lack of adequate access to modern energy services, which are often unaffordable. This situation is all the more difficult to manage for women in particular due to steep cultural traditions. As a result of the non-availability of energy and wood fuel, rural populations in Mali are unable to replicate their work, process foodstuffs, or profit from diverse development-related opportunities. UNDP has launched and implemented the very successful multi-functional energy platforms programme to address this issue and provide better sustainable livelihood opportunities for the rural poor in addition to launching an ambitious regional hydroelectric plan. Forest development and management is another area where UNDP is involved with the national authority to provide long-term income generating activities through sustainable biodiversity conservation.<sup>2</sup>

**Joseph Byll-Cataria, Resident Representative**

## PORTFOLIO

### ENERGY

Insufficient or non-existent access to modern energy services has prompted a vigorous effort to combat poverty through increasing access to energy in Mali. Three projects to develop renewable energy resources, multi-functional platforms and an ambitious regional hydroelectric plan play a major role in meeting the energy challenge in Mali. The impact of these projects also improves the livelihoods of women and young children who are most vulnerable to poor energy services. Donors for these projects include GEF, DANIDA, ADB, NORAD and UNDP's Energy Thematic Trust Fund. Mali is also drafting a GEF-funded strategy paper to address the harmful effects of climate change.

### BIODIVERSITY

UNDP is actively supporting Mali's efforts towards conservation of biodiversity. For example, the Kita Forest Development project provides long-term income-generating activities through sustainable tree harvesting and quota setting. In addition, the GEF-funded regional indigenous vegetation project is working in Botswana, Mali and Kenya to establish a regional arid zone bio-database, rehabilitate indigenous vegetation and degraded lands, and improve livestock production, technology transfer and training. At the global level, UNDP is also assisting in the preparation of an Interim Report to the Convention on Biological Diversity's Conference of the Parties, also funded by GEF, enabling Mali to meet its convention obligations.

### CHEMICALS

Significant progress is being made towards compliance with Montreal Protocol commitments as a result of the implementation of the refrigerant management plan funded by the Multilateral Fund of the Montreal Protocol. In addition to the establishment of a recovery and recycling network and provision of equipment, extensive training is made available to ensure sustainability of efforts. Mali is also participating in a regional methyl bromide (Me. Br.) phase-out project, implemented by UNDP for low-volume consumers in Africa. This project provides policy strengthening assistance to prevent the introduction of Me. Br. use in the country.



### CONTACTS

<http://www.ml.undp.org/html/benvrion.htm>

### PARTNERS

**Some of our Partners working with UNDP and the Government in Mali**

NORAD  
Government of Switzerland  
African Development Fund  
DANIDA

<sup>1</sup>Porcaro, J, Takada, M (Eds), "Achieving the Millennium Development Goals: The Role of Energy Services", UNDP, 2005: <http://www.undp.org/energy/docs/achievmg.pdf> ;

<sup>2</sup><http://www.ml.undp.org/html/benvrion.htm>



## SPOTLIGHT

**Waste Management Creates Jobs, Reduces Poverty<sup>1</sup>**

Despite its negative environmental impacts, piles of garbage are a common site in nomadic Mauritania. Without sufficient capacity, waste management can take a back seat to the immediate priorities of food and shelter. Lacking resources and technical means for effective removal and disposal of waste, a new partnership is beginning to bear fruit for the citizens of Basra, a suburb of the capital Nouakchott.

UNDP's Public Private Partnership for the Urban Environment (PPPUE) initiative is working to improve solid waste management in Basra. Implemented by the NGO Tenmiya in 2005 with assistance from UNDP, GTZ and the French Government, the project supports and organizes local-level stakeholders involved in solid waste management. Financial contributions for this project totalled approximately US\$ 97,000. Stakeholders include the Municipality of Basra, small, local private operators involved in the collection of solid waste, and the population of Basra organized through a community-based organization. Through the provision of basic services using a partnership modality between local government, small- and medium-size enterprises, and local communities, the living conditions of the poor will be improved. The project will also strengthen the capacities of local stakeholders in public-private partnerships to facilitate the establishment of an affordable and sustainable solid waste collection system for the poor.

This project will turn informal small private operators into organized small businesses that provide solid waste collection in poor neighbourhoods through a direct contract with the municipality. Once the framework has been developed through the pilot initiative, the project will be scaled-up and replicated in other parts of the city, as part of a broader strategy to reduce poverty through job creation in poor urban communities.



## STRATEGIES

## QUICK FACTS

**CURRENT PORTFOLIO BUDGET**

<b>Total UNDP-GEF and Co-Finance:</b>	\$2,188,000
<b>Total UNDP and Co-Finance:</b>	\$500,000
<b>Total:</b>	\$2,688,000

**Cumulative Total ODS Phased-Out:** 5.2 ODP tonnes





UNDP in Mauritania supported the process of the National Agenda 21 which led to the development of national environmentally sustainable development strategies articulated in the country's development frameworks, in particular, the National Environmental Action Plan (NEAP). Furthermore, UNDP assisted the country in launching some programmes addressing sustainable energy services and chemicals management.<sup>2</sup>



## PORTFOLIO

**Cecile Molinier, Resident Representative**

### FSSD\*

UNDP is supporting the Government in developing a strategy for environmental protection in Mauritania. Through a participative and multi-sectoral process, the development of the National Environmental Action Plan formulates a strategic and coordinated vision of the environmental situation in Mauritania, within the framework of sustainable development, and provides the country with a set of indicators to control and evaluate the environmental situation.

### ENERGY

With funding from GEF, UNDP is assisting Mauritania's efforts to increase energy access and use of renewable energy technologies. For example the Adrar Solar Initiative seeks to provide sustainable electricity access to the rural and low-income settlements in the Adrar desert area as well as on the northern coastline. The Urban On-Grid Wind Electricity addresses the power supply shortage issues common to all major urban areas, using three wind farms in Mauritania's three main cities. The adoption of the solar and wind energy alternatives bodes well for Mauritania's sustainable development efforts.

### CHEMICALS

The UNDP-supported programmes in the refrigeration sector are an integral component of Mauritania's Environment Plan of Action which seeks concrete steps towards compliance with Montreal Protocol targets. The projects under implementation provide assistance to a centralized recovery and recycling program in the cooling and mobile air-conditioning sectors, and encourage refrigeration end-users (commercial and industrial) and MAC to permanently replace or retrofit ODS-based equipment through incentives. The programme also includes a strong awareness-raising component. Mauritania is also participating in a regional methyl bromide (Me. Br.) phase-out project, implemented by UNDP for low-volume consumers in Africa. This project provides policy strengthening assistance to prevent the introduction of Me. Br. use in the country.



### CONTACTS

<http://www.undp.mr/english/environnement/index.html>

### PARTNERS

**Some of our Partners working with UNDP and the Government in Mauritania**

BAD  
GTZ  
Government of France

<sup>1</sup>PPPU, "Innovative Partnership Project in Mauritania", UNDP, 2005: <http://pppu.undp.org/downloads/UNDP%20PPPU%20-%20IPG%20Mauritania.pdf> and IRIN, "Mauritania: A Desert Capital Drowning in a Sea of Rubbish", OCHA, 15 Feb 2005: [http://www.irinnews.org/report.asp?ReportID=45576&SelectRegion=West\\_Africa&SelectCountry=MAURITANIA](http://www.irinnews.org/report.asp?ReportID=45576&SelectRegion=West_Africa&SelectCountry=MAURITANIA); <sup>2</sup><http://www.undp.mr/environnement/index.html>; \*Frameworks and Strategies for Sustainable Development



### Progress Towards Environmental Sustainability

In Mauritius, efforts are being made to conserve the remaining proportion of forestland. There was no reduction in the 30.4% of land area covered by forest between 1990 and 2000. According to official figures obtained, in 1997, 13,000 hectares of land were protected to maintain biological diversity

The use of energy in Mauritius is increasing at a faster rate than the rate of energy efficiency. Therefore, with a continued growth of the economy, energy use will increase, leading to a simultaneous increase in the emission of greenhouse gases, unless nuclear energy and solar energy are used as substitutes to greenhouse gases. In 1990, the carbon dioxide emissions per capita amounted to 0.9 tonnes. There is a marked increase of 59% in the emissions of carbon dioxide for the year 2000, where carbon dioxide emissions amounted to 2.2 tonnes per capita. Mauritius will therefore have to take important steps to curb the emission of greenhouse gases.

90% of the population had piped water and 62% had flush toilets in 1990. The proportion of people with improved sanitation increased further in 2000, where 98.5% of the population had access to individual piped water within their premises and 87% of the people had access to flush toilet systems.

Storage of water to ensure year round supply remains a critical concern. As at 2001, only 50% of the demand for water is being met. The Government of Mauritius has set a target to ensure satisfaction of 75% of water demand by 2005, and 100% by 2015.

Mauritius has a very high percentage of households that are owner-occupied. In 1990, 76% of households were owner-occupied. This figure sharply increased by 10.5% to reach 86.5% in 2000.

The Second National Environmental Strategies lays down Mauritius's strategy for the decade 2000-2010 for the protection and the preservation of the environment. It contains a number of recommendations and carries forward and extends the achievements of the First National Environmental Strategies initiated in 1988, which was developed to deal with the effects of economic growth on the environment.<sup>1</sup>

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$4,623,538
<b>Total UNDP and Co-Finance:</b>	\$86,000
<b>Total MPU and Bilateral:</b>	\$215,995
<b>Total:</b>	\$4,925,533

**Cumulative Total ODS Phased-Out:** 29.7 ODP tonnes

## SPOTLIGHT

### National Capacity Self-Assessment for Environmental Management<sup>2</sup>

As one of the world's Small Island Developing States, the Seychelles is characterized by the inherent vulnerabilities linked to its small land area and population, remoteness from major markets, limited natural resources, and fragile environment. Further development of economic sectors such as tourism, agriculture, manufacturing and other industries must therefore always be balanced against conserving the terrestrial and marine environment.

With initial grant funding of US\$ 200,000 from GEF in 2003, a project to undertake a National Capacity Self-Assessment (NCSA), completed in 2004, assessed the Seychelles' priority needs, taking into account existing documents such as the country's Environment Management Plan, National Biodiversity Strategy and Action Plan, and Initial Communications to the UN Framework Convention on Climate Change, which identified a number of critical capacity development needs.

Based on the findings of the NCSA, the project is now developing an Action Plan to build national capacity to meet the country's commitments to global environmental management. The Plan will be implemented through, firstly, informing capacity-strengthening activities supported under current and future GEF-funded projects in the Seychelles, secondly, re-orienting public sector financing to address priority capacity needs in a cost-effective manner, and thirdly, securing new funding and technical assistance, including from non-traditional sources.

Discussions are now underway with government institutions and the donor community to ensure that key recommendations of the NCSA are implemented through planned environment initiatives, ensuring synergies between activities to fulfil the Seychelles' international environmental commitments, and refining and pursuing long-term objectives to ensure sustainability and reliability of earlier initiatives, such as treatment of wastewater and engineered landfills, and more effective training for national parks personnel. This process will significantly contribute to sustainable development at national and global levels, increasing the country's voice at treaty negotiations and ensuring increased eligibility for support under the financing body of each of the Rio Conventions.



The Energy and Environment Programme is a chief area for UNDP's support to Mauritius both in terms of financial resources allocation and number of partnerships. The support to Mauritius in Energy and Environment is mainly concerned with the formulation of medium-size projects and implementation of medium-size and large-scale initiatives through GEF project development funding.<sup>3</sup> The biodiversity in Mauritius' many lagoons have been depleted. UNDP's efforts to protect and regenerate the marine eco-system are providing economic benefits and new employment possibilities for local fishery communities.

**Aase Smedler, Resident Representative**

## PORTFOLIO

### FSSD\*

To support the Government in developing a strategic approach to sustainable development, UNDP is implementing the Environmental Management and Sustainable Development project. Examples of the many initiatives being undertaken include marine protected areas management with community stakeholder participation, terrestrial biodiversity conservation, climate change mitigation options, promotion of renewable energy and energy efficiency in the transport sector.

In the Seychelles, UNDP is supporting the GEF-funded NCSA process, which assesses existing capacity and identifies the needs and priorities to meet its obligations under multilateral environmental conventions. Further details are provided in the Spotlight.

### ENERGY

In Mauritius, UNDP is implementing a GEF-funding project to support the removal of barriers to energy efficiency and energy conservation in buildings in Mauritius. The project takes a holistic approach, through horizontal integration of energy, engineering, economics, environment and ethics, and vertically integrating national and cross-sectoral policies.

### LAND

UNDP is supporting the adoption of sustainable land management (SLM) practices in Mauritius. For example, a project is working to strengthen the capacities of existing and new institutions at the local and national levels, develop policy and planning tools, integrate land management priorities into national physical development plans, build partnerships and heighten awareness of SLM. The project is funded by GEF.

### BIODIVERSITY

Conservation and Sustainable Use of Biodiversity is a major area of UNDP's support to Mauritius terms of financial resources and partnerships. For example, the GEF-funded project, "Partnerships for Marine Protected Areas in Mauritius and Rodrigues" is establishing a system of marine protected areas to ensure the conservation and protection of critical and unique marine biodiversity in the area.

### CHEMICALS

Building on the successful cooperation established during the implementation of five projects funded by the Multilateral Fund of the Montreal Protocol in the refrigeration and aerosol sectors, the Government of Mauritius is now working with UNDP to further develop sustainable capacity to enable the country to meet its obligations under the Stockholm Convention on POPs. The enabling activity to prepare a National Implementation Plan for sound management of POPs is funded by GEF.

### CONTACTS

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### PARTNERS

**Some of our Partners working with UNDP and the Government in Mauritius**

EU

**Some of our Partners working with UNDP and the Government in Seychelles**

World Bank      UNEP  
UNIDO

<sup>3</sup>MDGR 2004 [http://www.undg.org/documents/2746-MDR\\_on\\_Mauritius.pdf](http://www.undg.org/documents/2746-MDR_on_Mauritius.pdf); <sup>4</sup>UNDP, 'UNDP in Mauritius and Seychelles'; UNDP Seychelles Questionnaire response; GEF Online database: <http://www.gefonline.org/projectDetails.cfm?projID=174>; <sup>5</sup>[http://un.intnet.mu/UNDP/html/mauritius/energy\\_env.htm](http://un.intnet.mu/UNDP/html/mauritius/energy_env.htm); <sup>6</sup>Frameworks and Strategies for Sustainable Development

## MOZAMBIQUE

## Progress Towards Environmental Sustainability



Mozambique is a country rich in an array of natural resources including wildlife, lumber and minerals, some of which hold a significant exportable value. Some of these resources are largely under-exploited due to prolonged conflict, except for large fauna, which has been significantly impacted by the war. Still, localized practices, such as uncontrolled logging, hunting, and over-fishing already pose pressure on individual species. Also, inadequate use of water resources, as well as disorganized urban development, are mainly linked to increased economic activity and may also threaten in the long run the existing natural resource base, if this unsustainable trend is not reversed early enough.



The geographical location of Mozambique makes it susceptible to constant floods, cyclones and droughts, all of which have considerable impact on the environment. Although comprehensive, existing sectoral policies and programmes have so far not led to the formulation of a broad, updated and multi-sectoral sustainable development policy, which could provide the much-needed coordinating umbrella. Challenges for the formulation of a sustainable development strategy include increased coordination between the Ministry of Environment and sectoral ministries to ensure coherence in policies and programmes; identifying 'win-win' strategies; increasing substantially the current low levels of conservation enjoyed by ecologically significant areas; and promoting integrated environmental management with involvement of communities and other stakeholders in areas where it is likely to have success.

Moreover, account for the geographical vulnerability of Mozambique in the national development policy framework is much needed in order to accommodate for the different types of natural disasters that the country is prone to. Integrating other important crosscutting issues into the national development strategy, such as gender and HIV/AIDS, also constitutes a priority high on Mozambique's development agenda.

Recent milestones in environmental management in Mozambique include the 2001 declaration of the Bazaruto Archipelago as an area under environmental protection. It now ranks among East Africa's largest national marine parks.<sup>1</sup>

## QUICK FACTS

## CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$200,000
<b>Total:</b>	\$200,000

**Cumulative Total ODS Phased-Out:** 6.9 ODP tonnes

## SPOTLIGHT

Public-Private Partnership Promotes Effective Water Governance<sup>2</sup>

Water does not always flow easily in Mozambique. In the provinces of Maputo and Matola, the urban poor lack access to safe water supplies, while poor sanitation and infrastructure exacerbate and sustain the high levels of poverty.

To address these significant challenges, UNDP has established a public-private partnership for more effective water governance. Together with the Government and CARE International, UNDP's Public-Private Partnership for Urban Environment (PPPUE) initiative launched a project in 2002, with US\$ 100,000 grant funding, to provide water and sanitation services to 20,000 households in Maputo and Matola. The project is also working to institutionalise dialogue among consumers, private companies and municipal councils to protect vulnerable communities from negative impacts of water privatisation. Other partners include the Municipal Directorate of Water and Sanitation, the Water Regulatory Council, community-based organisations in the cities of Maputo and Matola and Aguas de Mozambique, a private firm currently running water supply and sanitation in both cities.

Through this innovative grant project, area-based offices and consultative water committees are established to enable communities to actively participate in the water sector; a critical leverage point for poverty alleviation. Through the project, community representatives learn key issues involved in water supply and sanitation and become focal points to address these issues with the Water Regulatory Board and the private supplier. Community representatives are also trained to understand the water tariff structure as well as how to handle water leakage and other problems that would impact water tariffs. These processes help create public awareness of the rationale for private sector participation in public service delivery, help avoid confusion and resistance often seen in the reform of public services in developing countries, and ensure that the poor will be able to afford the water and sanitation services provided.



The UNDP CO intervention on the environmental sector, relates more to the partnership with Ministry for the Coordination of Environmental Affairs in the area of environment and sustainable development that dates since the establishment of this ministry back in early 1995. The main cooperation objectives underlie in the materialization of the National Environmental Management Plan-PNGA, the Local Agenda-21, the Environmental Strategic Plan for 2005-2015, and the Action Plan for Reduction of Absolute Poverty-PARPA. Under a broad regional and global perspective cooperation also exists in the materialization of NEPAD and the MDGs.

**Marylene Spezzati, Resident Representative**

## PORTFOLIO

### CHEMICALS

Mozambique is participating in a regional methyl bromide phase-out project being implemented by UNDP for low volume consumers in Africa. This project provides policy strengthening assistance that aims to prevent introduction of MB use in the country.



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### PARTNERS

**Some of our Partners working with UNDP and the Government in Mozambique**

Government of The Netherlands  
Government of Norway  
DFID



### Progress Towards Environmental Sustainability

Namibia's abundant natural resources are a backbone of the national economy, fisheries and mining. Approximately 43% of Namibia is designated as freehold land, 39% as communal land, and 18% as government land. The majority of the population is dependent on the land in some way, especially for extensive cattle, goat and sheep farming. However, the arid and semi-arid nature of the country coupled with recurrent droughts and flooding, especially in the northern areas, creates difficult conditions for a substantial part of the population dependent on subsistence agriculture.

With the decision by Cabinet to proclaim the Sperrgebiet as a national park, protected areas cover 16.8% of Namibia.

Apartheid policies focused on wildlife conservation and exploitation of minerals such as uranium, diamonds and copper. Since Independence, the main challenge for Namibia has therefore been to introduce the principles of sustainable development and natural resource management. As a developing country located in an arid region where drought and high climatic variability are endemic, and where great demands are placed upon the natural resources. Namibia is considered particularly vulnerable to the effects of climate change. Marine fisheries are greatly influenced by the Benguela current, which poses a great challenge to resource management. Desertification threatens sustainable economic development because it reduces productivity, including water supply, limits opportunities for other forms of land use, alters natural habitats and threatens biodiversity.

Environmental sustainability in Namibia affects the country's ability to achieve all MDGs. The impacts of desertification in Namibia include deforestation, soil erosion, bush encroachment, reduced soil moisture-retention, loss of biodiversity, and soil salination. This

results in economic losses and escalating poverty for the majority of the population through declining agricultural production and reduced food security. These in turn lead to greater vulnerability towards the accelerating HIV/AIDS epidemic, human migration, rapid urbanization and an increased dependence on government support and importation of food. Poverty, food insecurity, environmental degradation and HIV/AIDS form a vicious circle, and pose a key challenge to achieving the MDGs in Namibia.<sup>1</sup>

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$53,235,000
<b>Total:</b>	\$53,235,000

## SPOTLIGHT

### Country Partnership Programme for Sustainable Land Management<sup>2</sup>

As one of the driest countries in sub-Saharan Africa, Namibia is subject to frequent droughts. Land degradation and the attendant desertification is therefore an increasing problem, manifested by habitat conversion through deforestation, overgrazing of rangelands, and changes in the vegetation structure in pastoral areas. Approximately 70% of the population is directly dependant upon subsistence agriculture and livestock husbandry; land degradation therefore jeopardises rural livelihoods, undermines ecosystem integrity, and threatens the forfeiture of global environmental benefits.

Reversing land degradation requires bringing together government ministries from many sectors, community leaders and NGOs, while removing capacity constraints at the institutional and individual levels – actions opposing to previous environmental policies and the lack of land tenure rights. A new GEF project to develop a Country Partnership Programme for sustainable land management (SLM) will seek to address these capacity constraints through an inter-sectoral programmatic approach and coordinated execution of a package of strategic interventions. The project will run until 2010 and will incorporate a US\$ 9.25 million GEF grant and additional co-financing grant of US\$ 82.061 million from international donors to meet SLM objectives. As the executing agency, Namibia's Ministry of Environment and Tourism will direct the framework and strategies of the pilot programme, together with the Government of Namibia, the EU, UNEP and other development partners and civil society leaders. The one-year preparatory phase ending in August 2005 resulted in the formulation of a stakeholder participation plan and monitoring plans.

This Partnership is essential for combating land degradation in Namibia. Both the Ministry and the UN Convention to Combat Desertification place a high priority on public participation as a means of combating land degradation, thus creating a strong sense of ownership among the people of Namibia and advocating a long-term, sustainable approach to preventive measures against land degradation and poverty.

The Environment Unit in UNDP Namibia strives to mainstream environment in development activities in order to ensure their sustainability through policy dialogues and by creating awareness at all levels of the society. In close co-operation and partnership with both national and local governments, NGOs, Private Sector and civil society UNDP offer technical, advisory as well as administrative services in regional co-operation and co-ordination in natural resource management and sustainable energy development, national capacity for participation in global conventions, regulatory regimes and funding mechanisms for environmentally sustainable development and promotion of public-private partnerships for urban environment. Resource mobilisation for environment/poverty reduction efforts in Namibia is also an important role of UNDP. UNDP strives to solicit international funding sources for both governments and civil society in their efforts towards sustainable development and to achieve the MDGs.

**Simon R. Nhongo, Resident Representative**

## PORTFOLIO

### FSSD\*

To support Namibia to reduce poverty while protecting the environment, UNDP is implementing funding from GTZ, the PPPUE Trust Fund and GEF for projects in poverty reduction, capacity building and improving basic urban environmental services in Namibia. In addition, the GEF-funded National Capacity Self-Assessment (NCSA) process, Poverty Reduction Action Plan and Public-Private Partnerships all bring environment and poverty to the forefront of their strategic frameworks.

### ENERGY

In Namibia, UNDP is assisting the provision of renewable energy to support national development needs. For example, a project funded by UNDP's Energy Thematic Trust Fund supported the development of biomass management tools, including an energy needs assessment, a users' manual and Geographic Information Systems map, leading to the production of a national strategy for sustainable use of biomass energy. In terms of climate change, GEF funding has enabled the country to fulfil its commitments to the UNFCCC in the form of the Second National Communication. In addition, GEF has supported projects to enable adoption of new technologies that reduce GHG emissions, and to remove barriers to solar technologies, such as financing, installation and maintenance.

### LAND

UNDP is supporting the adoption of sustainable land management practices in Namibia. For example, the GEF Country Pilot Partnership for Sustainable Land Management seeks to address the root causes of land degradation in Namibia. The Spotlight section provides fuller details on this initiative.

### BIODIVERSITY

UNDP is supporting biodiversity conservation and sustainable use in Namibia. For example, GEF has mobilised significant resources to strengthen the State Protected Areas (PAs) Network and terrestrial ecosystems, and to complement initiatives in production landscapes and in coastal and marine ecosystems. The two-phase project will focus on strengthening systemic and institutional capacity and improving partnerships with local communities, the private sector and government agencies. The second phase includes creating PAs on non-state land and strengthening private reserves.



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### PARTNERS

**Some of our Partners working with UNDP and the Government in Namibia**

GTZ  
 SIDA  
 DANIDA  
 USAID  
 Government of Japan





### Progress Towards Environmental Sustainability

Environmental degradation in Niger is largely due to over-use of wood as a principal source of energy, erosion, mismanagement of solid and household waste, as well as pollution mainly caused by the industry sector. Desertification and droughts also pose a difficult challenge to achieving environmental sustainability in the country.

Niger has 5 protected areas to preserve its biodiversity, which represents 6.6% of the total land surface area. In 2000, around 52% of the population had access to safe drinking water. Between 1991 and 2000, the rate of water coverage declined rapidly due to an increase in water demand, triggered by a rapid population growth rate.

In Niger, 40% of the population lives in slums, where housing is unsafe and poorly constructed and does not satisfy the minimum requirements of comfort, security and hygiene. It is not so much poverty, however, that has led to these slum dwelling conditions. Lack of property ownership and unequal social conditions are major factors in the problem of slum dwellers in Niger.

Challenges to achieving MDG 7 for environmental sustainability in Niger include: desertification, deforestation, weak coordination of development initiatives among several sectors, lack of public environmental awareness, lack of natural and financial resources, especially at the local level, and rapid population growth, which has also exacerbated poverty levels.<sup>1</sup>

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$2,175,187
<b>Total UNDP and Co-Finance:</b>	\$2,569,433
<b>Total MPU and Bilateral:</b>	\$15,455
<b>Total:</b>	\$4,760,075

**Cumulative Total ODS Phased-Out:** 5.8 ODP tonnes



## SPOTLIGHT

### Local People Given Rights and Responsibilities to Manage Their Land<sup>2</sup>

Like many Africa countries, most people in Niger derive their livelihoods from the natural resources of the land. However, the communities in this arid country are affected by a high incidence of absolute poverty, increasingly rapid land degradation, and high rates of population growth.

Since 2000, UNDP's Drylands Development Centre, in collaboration with a number of partners and donors, including DANIDA, Fonds Belges de Survie, the UN Capital Development Fund, and the World Food Programme, have been supporting Niger in developing and implementing an integrated drylands development programme that addresses local development, poverty alleviation, and the governance of natural resources. One component of the programme has established COFO

"Commission Foncière", a team of trained people that work with local institutions to assist land use planning and solving problems related to land tenure. In Mayahi and N'guigmi, located in the central and eastern parts of the country where the programme is being implemented, COFO is generating, collecting and disseminating information, while raising awareness on topics of land ownership and ecological stewardship; delineating pastoral and agricultural spaces; making natural resource inventories; assessing the allocation of property rights while taking into account formal and customary tenure systems; recording land transactions, and delivering land titles.

COFOs' work has helped resolve disputes within and between communities, and has provided farmers with adequate tenure security while strengthening their capacity in natural resource management.



An enclave at the heart of the Sahara, Niger has a population of nearly 10 million inhabitants, more than 50% of which are under the age of 18. The national strategy plan is centred on adolescents and aims to improve key deficiencies such as lack of access to primary health care, lack of potable water sources and lack of access to education and training facilities. Due to the situation of extreme poverty experienced by a large proportion of the population, especially in rural areas, and the strong relationship between poverty and desertification, the Government has decided to implement its National Action Programme through the Poverty Reduction Strategy. This endeavour will direct the coordination between Niger and an array of development partners and international donors to simultaneously mitigate poverty and promote economic sustainable development.<sup>3</sup>



**Michele Falavigna, Resident Representative**

## PORTFOLIO

### FSSD\*

UNDP is working to support Niger in mainstreaming environmental concerns into national planning. For example, UNDP has assisted in the establishment of National & Regional Councils for Sustainable Development, and a new forest law has been enacted and published in over 3000 brochures, with the support of the National Environmental Management Programme. In addition, through work on the ground in 15 separate initiatives, UNDP has implemented activities ranging from reinforcement of national capacity in the environmental education sector, to National Action Plans for combating desertification and natural resource management.

### WATER

The formation of a National Water Commission, promotion of Integrated Water Resource Management, and the development of a National Geographic Information System database are just a few of the 14 UNDP water governance projects currently serving the Republic of Niger. The largest is a GEF-funded trans-boundary initiative, which is working to reversing land and water degradation trends in the Niger River basin.

### ENERGY

UNDP is supporting Niger to enhance its understanding climate change and how to adapt to its harmful effects. The objective of the GEF-funded National Adaptation Programme of Action is to address the needs of the country to adapt to the adverse impacts of climate change. Part of this exercise also involved a national climate change self-assessment in 2004 that reviewed current gaps in mitigating activities that exacerbate climate change, also funded by GEF.

### LAND

Two projects are currently in progress to support sustainable land management to combat desertification and land degradation in Niger. The Sustainable Co-management of the Natural Resources of the Aïr-Ténéré Complex, and Land Recovery and Restoration endeavour to promote decentralised soil management and shrub restoration. Both plans are geared toward improving livelihoods in central and rural areas. GEF and UNDP are providing funding, with additional donors including Germany (KfW), France (FFEM), UNESCO, DANIDA, and the EU.

### BIODIVERSITY

UNDP is supporting the protection of biodiversity in Niger through a project which developed from the GEF-funded National Biodiversity Strategy and Action Plan (NBSAP). The NBSAP highlighted regions requiring the greatest protection and which lacked the capacity to implement adequate conservation. The new project was developed to target these specific communities where poverty is highest and the need for conservation support greatest. Local populations were then employed in managing protected areas and are being shown the benefits of sustainable use of forested regions.

### CHEMICALS

UNDP has assisted Niger in its Montreal Protocol compliance programme by focusing on the refrigeration sector. In support of the continued success of Niger's refrigeration management plan, UNDP has supported initiatives that include a comprehensive RMP update, a recovery and recycling programme, and the establishment of a monitoring system. Niger also participates in a regional Methyl Bromide (Me. Br.) phase-out project, implemented by UNDP for low-volume consumers in Africa. This project provides policy-strengthening assistance to prevent further introduction of Me. Br. use in the country.

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### PARTNERS

#### Some of our Partners working with UNDP and the Government in Niger

UNEP	DGIS	DANIDA
FFEM	DFID	EU
IUCN	WWF	World Bank
CBLT	AFDB	UNESCO
Government of France	KfW	
Government of Norway	FFEM	
Government of The Netherlands	Italian Cooperation	

<sup>1</sup>MDGR 2003 [http://www.undg.org/documents/5349-Niger\\_MDG\\_Report\\_-\\_French.doc](http://www.undg.org/documents/5349-Niger_MDG_Report_-_French.doc); <sup>2</sup>UNDP Drylands Development Centre, "An integrated development programme for the drylands"; <sup>3</sup>[http://www.pnud.ne/pnudfr/prgm/environnement/env\\_dap.html](http://www.pnud.ne/pnudfr/prgm/environnement/env_dap.html) and <http://www.cnedd.net/>; <sup>4</sup>Frameworks and Strategies for Sustainable Development



## SPOTLIGHT

**Biodigesters Provide Energy, Conserve Forests, and Improve Female Health<sup>1</sup>**

Despite the abundance of oil and gas and a high potential for hydro-electricity, Nigeria still heavily relies on wood and bagasse – external stalk material from sugar cane production – for domestic energy needs. Forested regions are declining rapidly as Nigeria's annual wood consumption is estimated at about 80 million cubic meters. The situation is worst in the semi-arid region of the country where, there is a severe lack of forest wood, forcing women to spend hours looking for wood sources.

With funding of US\$ 30,000 from UNDP regular resources and the Government of Nigeria, Africa 2000, an international NGO, was invited to facilitate the adoption of low-cost biogas technology in the severely affected semi-arid region. Two consultants from Tanzania's Sokoine University of Agriculture conducted a workshop for 30 participants drawn from 10 northern states in September 2001. The trainees became knowledgeable technicians and prepared the installation of two bio-digester models, one tabular plastic, and one floating drum, which break-down animal manure for gas production. Three pilot digesters were installed in the states of Kano, Jigawa and Yobe for 12 households. A successful evaluation nine months later found that the floating drum type was most economical and can function for up to 5 years if properly maintained.

The benefits of the project included shortened cooking times, and a cleaner local environment, while decreased wood consumption aided the re-generation of woodlands in the semi-arid regions. Ongoing collection of cow dung needed to generate fuel from the bio-digesters also improved local hygiene. Women now spend significantly less time foraging for wood and their physical and respiratory health has greatly improved.

## ENERGY

## QUICK FACTS

**CURRENT PORTFOLIO BUDGET**

<b>Total UNDP-GEF and Co-Finance:</b>	\$924,000
<b>Total MPU and Bilateral:</b>	\$14,259,789
<b>Total:</b>	\$15,183,789

**Cumulative Total ODS Phased-Out:** 3,422.4 ODP tonnes



Nigeria is pursuing sustainable livelihood through the development of policies and strategies that simultaneously address issues of development, sustainable resource management and environmental protection.<sup>2</sup> UNDP Nigeria has seized the opportunity to refocus its support to national environmental concerns to include promoting the integration of environmental and energy concerns into development planning, policies and programmes. It is working actively to energize the Donor Group on the Environment to support national coordination of environmental concerns and make the Ministry of Environment and other relevant stakeholders more pro-active.

**Tegegnwork Gettu, Resident Representative**

## PORTFOLIO

### ENERGY

UNDP is assisting Nigeria to adapt to the impacts of climate change. For example, the GEF-funded enabling activity to implement UNFCCC provides Nigeria with the ability to respond appropriately through the establishment of policy dialogue, analysis of climate change impact and response scenarios. The project also assists the country in climate change abatement strategies through the strengthening of national institutions that are directly or indirectly responsible for national policy-making on climate change issues.

### BIODIVERSITY

To ensure that biodiversity concerns are integrated into national planning, UNDP supported the Federal Ministry of Environment in the preparation of the GEF-funded National Biodiversity Strategy and Action Plan (NBSAP). The NBSAP builds on existing national strategies and plans, particularly the National Conservation Strategy and the National Environmental Action Plan. These efforts promoted renewed vigour toward national environmental and energy policy in Nigeria.

### CHEMICALS

MLF funding has made possible UNDP's comprehensive support programme wherein 72 projects have been executed in over a decade. Although the bulk of the projects focus on the foams sector, as a response to country's needs, significant contribution is also made in the refrigeration sector. Implementation of the current national CFC phase-out plan ensures that direct impact is achieved in both sectors through policy support, training workshops, equipment provision and extensive national awareness-raising campaigns. The programme will achieve a phase-out of 1,443 ODP tonnes by the end of 2009. Continuous support through institutional strengthening initiatives ensures not only sustained government capacity to respond to MP requirements, but also allows for coordinated programme development and smooth implementation. Nigeria also participates in a regional UNDP programme in the methyl bromide (Me. Br.) sector that will allow it to phase-out 20% of its Me. Br. consumption in the soils sector.



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<sup>1</sup>UNDP Nigeria Questionnaire 2005; <sup>2</sup><http://www.undp.org.ng/abnga1.htm>



### Progress Towards Environmental Sustainability

Since 1995 Rwanda has experienced massive refugee movements, with far reaching consequences. This has been exacerbated by the large internal displacement of people, resulting in increased vulnerability for sections of the population. The Government was forced to suspend its concern for the environment in the face of such urgent and pressing challenges. But more recently, it has stepped up its efforts in this field by developing a number of environmental strategies and action plans, notably, The National Environmental Action Plan. While the overall policy framework is improving and the concept of sustainable development is gaining ground, the environment continues to come under enormous pressure.

About 41% of the population has access to a safe water supply; however, this figure does not reflect important urban-rural disparities in the country. While 73% of the urban households have access to a safe water supply, only 16% of rural households have access to safe drinking water sources. In terms of sanitation, 53.6% of Rwandans use protected latrines, 39.5% unprotected latrines, 4.5% have no latrines, and only 1.2% have flush toilets. There has also been widespread development of slums in urban areas due to increased levels of rural-urban migration. Rwanda's rate of urbanization has increased rapidly from approximately 5% before 1994 to approximately 16% in 2002. Urban waste and sanitation have therefore been negatively affected due to pressure from a growing population resulting in poor waste management and increased water pollution.

Currently, over 96% of Rwandans depend on wood for domestic energy, leading to extensive deforestation. At the turn of the century, Rwanda's natural forests comprised 30% of the country's total land area. That figure presently stands at only 7%. Overall, Rwanda has been and continues to be caught in a vicious circle whereby increased pressure for land and fuel wood results in high levels of environmental degradation. The long-term losses caused by deforestation are therefore both high and seemingly irreversible.

In terms of raising public awareness, the Rwandan government continues to organize an annual "environment week." Numerous activities take place throughout the week, including radio and television broadcasts and special events and activities.<sup>1</sup>

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$13,138,000
<b>Total MPU and Bilateral:</b>	\$138,758
<b>Total:</b>	\$13,276,758

**Cumulative Total ODS Phased-Out:** 3.3 ODP tonnes

## SPOTLIGHT

### Biogas Energy Conserves Fuelwood and Protects the Environment<sup>2</sup>

In Rwanda, the 1994 war and genocide resulted in severe overcrowding of prisons, holding over five times the number of prisoners originally planned, over 120,000 nationwide. The overpopulation led to unsustainable use of firewood for cooking and rendered toilet facilities inoperative, posing health risks to the prisoners, and to the general public, through air pollution, and contamination of soils and water.

Between 2001 and 2002, the Kigali Institute of Science, Technology and Management (KIST) successfully set up a pilot biogas project at Cyangugu Central Prison to address the problems of sanitation, alternative fuel for cooking purposes, and the possibility of recovering manure for production of food crops and woodlots. The Project was financed by the Ministry of Internal Security, and Penal Reform International, with contribution from KIST in the form of continuous research and development.

Through treating toilet wastes from the entire prison, 275 m<sup>3</sup> of biogas is generated daily for cooking purposes. As a result, biogas has reduced firewood demand in the prison by 50%; the bio-effluent is now safely applied on the farm, and the bucket system of evacuating toilet pits has stopped, as the wastes flow by gravity: from toilets to bio-digester, and from bio-digester to the farm.

To ensure the replication of this success, UNDP is supporting a KIST-implemented biogas project for Kigoma Prison, with funding from the Netherlands Embassy. In addition, the Ministry of Internal Security, in partnership with the Red Cross, has plans to provide three prisons per year with biogas systems. To date the project has trained a total of 150 artisans and technicians, out of which 3 private businesses have so far been established. In 2005 KIST won an international environmental award in recognition of its innovative work at Cyangugu Prison, the Ashden Award for Sustainable Energy.



The linkages between poverty and environment are very strong in Rwanda. One of the main environmental problems in the country is deforestation, which leads to important soil erosion that directly affects the poor who rely on subsistence agriculture and natural resources for their survival. UNDP in Rwanda is engaged in several initiatives in accordance with the Government's strategies to improve environmental sustainability and reduce poverty. These include: promoting alternative energy sources to replace the use of firewood, protecting the remaining natural forests by implementing better settlements for the returning refugees and capacity building for sustainable management of environmental and natural resources.

**Macharia Kamau, Resident Representative**

## PORTFOLIO

### FSSD\*

UNDP is supporting Rwanda to incorporate environmental considerations into its national poverty reduction strategies, in collaboration with UNEP, and is encouraging a decentralised approach to environmental management. In addition, the GEF-funded National Capacity Self-Assessment (NCSA) process allows Rwanda to ascertain current constraints to existing capacity, and outline specific action areas needed to meet its requirements under the three Rio conventions on Biodiversity, Climate Change and Desertification.

### ENERGY

UNDP is supporting Rwanda to adopt alternative energy, critical to reducing the high rate of deforestation in Rwanda. For example, the Arusha resettlement village in the Province of Gisenyi is equipped with a centralized solar battery charging-station that re-charges portable electric lights used by villagers. Thus solar electrification can be easily monitored and "handed off" to households. In addition, a regional Mini/Micro-hydro Capacity Development Initiative promotes decentralized rural electrification in Burundi, the Central African Republic, the Democratic Republic of Congo, and Rwanda through investments in micro-hydropower systems. UNOPS and UNDP are coordinating the project.

### BIODIVERSITY

To support national efforts towards biodiversity conservation in Rwanda, and meet its commitments to the Convention on Biological Diversity (CBD), UNDP supported the development of the GEF-funded Second National Report to the CBD. The report presented measures implemented by the country to conserve biodiversity within the framework of national priorities and CBD commitments and obligations. The process also provided an opportunity for an assessment of the physical, biological and socio-economical status of the environment, and the national political, institutional and judicial initiatives relevant to biodiversity conservation.

### CHEMICALS

The UNDP implemented project, part of the RMP for Rwanda, contributes to the country's compliance objectives under the Montreal Protocol. The initiative centres on the establishment of a CFC recycling and recovery centre. In addition to initial operational expenses for the centre, equipment, hands-on training and tools will also be provided. The quantity and quality of recycled CFC is measured by a developed monitoring system.



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MGVP	REMA	DFGF
MINITERE	BAD	
HELPAE	IEPF	

## SAO TOME &amp; PRINCIPE

## Progress Towards Environmental Sustainability

Sao Tome and Principe's ecosystem is very fragile and is prone to risks that hamper the country's socio-economic development, especially in the absence of efficient implementation of a clear environmental strategy. Poor sanitation poses a major challenge and threatens public health, leading to high rates of mortality caused by water-borne diseases, a high incidence of malaria, and environmental pollution caused by solid waste, thereby inflicting disastrous consequences on the population's health and the country's economy.

The proportion of the population with access to a source of safe drinking water is low: only 19% of the population has access to water points. The situation regarding sanitation is even worse, in that only 16% of families have access to basic sanitation. Deforestation also poses a challenge, as many depend on selling wood as a source of living in order to support their families. Also, the majority of the population uses wood as a source of energy, primarily because they cannot afford to buy petrol or gas for cooking. Moreover, many houses are made of wood, which further exacerbates the problem of deforestation in Sao Tome and Principe, and harms the country's ecosystem.

Coastal erosion will eventually have a devastating and irreversible impact if urgent measures are not taken to remedy this problem. It is important to note that public environmental awareness is very limited in Sao Tome and Principe, and it is particularly worrisome that the link between the importance of environmental sustainability and development is largely unaccounted for, especially for such a small and developing country.<sup>1</sup>

## QUICK FACTS

## CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$575,000
<b>Total UNDP and Co-Finance:</b>	\$1,645,000
<b>Total MPU and Bilateral:</b>	\$125,000
<b>Total:</b>	\$2,345,000

**Cumulative Total ODS Phased-Out:** 2.8 ODP tonnes



## SPOTLIGHT

A Legal Approach to Sustaining Biodiversity<sup>2</sup>

Large construction projects near coastal areas, and the associated rapid deforestation and uncontrolled sand extraction, is causing erosion and land degradation on the volcanic archipelago of São Tomé e Príncipe. Indigenous marine life has also fallen prey to these commercial developments, as exemplified through the systematic plundering of female tortoise nests.

The Saotoméén government has been active in environmental affairs since 1993 and developed a strategy to create a dual-conservation zone covering a total land area of 295 square km of mountainous and low-altitude ecosystems on both main islands. Financial assistance of US\$1.4 million was provided by the EU, with UNDP providing of technical, logistical and legal assistance. UNDP proposed a partnership with the Central African ECOFAC forest use and conservation programme, to work together in harmonising all legal environmental laws made in São Tomé e Príncipe, including all legislative documents concerning ECOFAC, and establishing the Ôbo Natural Reserve. ECOFAC operates in remote, traditional societies with little integration into the national economy, and without infrastructure and services.

As of 2005, protected forest boundaries have been drawn for the Ôbo Reserve and an eco-tourism initiative has been launched. The creation and training of a corps of forest guards, forming the basis of a new national forest management service, highlights the country's efforts in environmental conservation and poverty reduction. Cadets will also be involved in leading day-hikes as part of the eco-tourist initiative. In addition, nurseries and designated plantations for sustainable wood harvesting have been established. Soil erosion due to the rapid expansion of commercial agriculture is being tackled by introducing modern cultivation techniques as previously applied in a similar project in Cameroon. Finally, the project has developed awareness campaigns designed specifically to educate young people on tortoise capture and protection.

UNDP is assisting São Tomé et Príncipe in developing programmes dealing with priority development areas, specifically in the water and energy sectors by providing capacity development. Conservation of Central African Forest Ecosystems (COFAC) focuses specifically on the Obo reserve in STP. This initiative contributes to poverty reduction by creating awareness on sustainable forestry. São Tomé et Príncipe puts great emphasis in meeting its obligations under the International Environmental Agreements, in particular UNFCCC where the Government looks at climate change as a process critical to fighting poverty.<sup>3</sup>

**Christian Lehembre, Resident Representative**

## PORTFOLIO

### FSSD\*

UNDP is supporting the Government to assess its capacity needs to fulfil its commitments to the three Rio Conventions on Biodiversity, Climate Change, and Desertification. In addition, the GEF-funded National Capacity Self-Assessment (NCSA) exercise in São Tomé and Príncipe will identify priority development areas, specifically in the water and energy sectors, and will provide a follow-up on national environmental management activities vital to the country's national development objectives.

### ENERGY

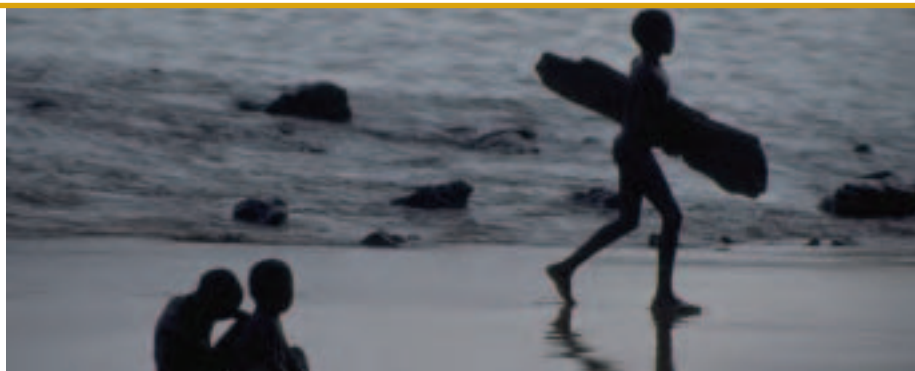
In terms of Climate Change, with GEF funding UNDP is supporting the preparation of the First National Communication to the UNFCCC, enabling the national government to comply with the provisions of the convention. The process includes a GHG inventory and an assessment of the implications of the impacts of climate change on the country.

### BIODIVERSITY

In support of the conservation and sustainable use of the islands' biodiversity, UNDP is working in collaboration with the regional organisation Conservation of Central African Forest Ecosystems (COFAC) to manage the Obo reserve. This initiative contributes to poverty reduction by creating awareness on sustainable forestry. Further information is provided in the Spotlight section.

### CHEMICALS

UNDP's technical assistance project to reduce ODS emissions is funded by the Multilateral Fund of the Montreal Protocol, and targets the refrigeration servicing sector through the provision of equipment and tools, as well as training. The country is also participating in a regional methyl bromide (Me. Br.) phase-out project, implemented by UNDP for low-volume consumers in Africa. This project provides policy-strengthening assistance to prevent the future introduction of Me. Br. Use in the country.



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### PARTNERS

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World Bank  
BAD  
FAO  
EU

<sup>1</sup>MDGR 2004 [http://undg.org/documents/5511-Sao\\_Tome\\_and\\_Principe\\_MDG\\_Report.pdf](http://undg.org/documents/5511-Sao_Tome_and_Principe_MDG_Report.pdf); <sup>2</sup>UNDP Sao Tome e Principe Questionnaire 2005; ECOFAC website: <http://www.ecofac.org/EN/C5-SaoTome.htm>; <sup>3</sup><http://www.uns.st/undp/french/environmentFR.htm>; <sup>4</sup>Frameworks and Strategies for Sustainable Development



### Progress Towards Environmental Sustainability

The establishment of the Superior Council for the Environment and Natural Resources, as well as of the Center for Ecological Monitoring have both paved the way for the development of Senegal's National Environmental Action Plan, which serves as a useful tool to properly address the country's environmental problems.

Some of the challenges facing Senegal include: weak social mobilization to prevent the loss of natural resources; lack of financial support; need to implement environmental protection strategies; weak strategic framework; unavailability of information; lack of public awareness regarding roles and responsibilities, and the absence of a thorough environmental data-base.

Important efforts remain to be made in Senegal's water sector, if it is to reach its country-specific target of providing 35 liters of water per person per day. In order to achieve this target, Senegal, with its current rate of 28 liters per person per day, will need the support of its partners in several ways, including the establishment of new water points as well as the rehabilitation of old water facilities.

Senegal recognizes the importance of biodiversity and has therefore protected 6 national parks, 6 fauna reserves and 213 forests.

Some of the issues addressed by the Ministry of Environment focus on desertification, climate change, biodiversity, solid waste management, and pollution.<sup>1</sup>

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$9,075,000
<b>Total UNDP and Co-Finance:</b>	\$15,192,977
<b>Total:</b>	\$24,267,977

## SPOTLIGHT

### Managing Wastewater: Preventing Malaria and Improving Livelihoods<sup>2</sup>

Near Dakar, in a sprawling peri-urban hinterland called Yeumbeul, with a population of 120,000, stagnant pools of discarded household wastewater provide breeding-grounds for mosquitoes. As a result, malaria sufferers, mainly children, account for over 80% of all medical consultations.

UNDP's LIFE programme has been working in one neighborhood, Houdalaye, which today is the cleanest in all Yeumbeul. The lanes are dry, there are fewer mosquitoes and incidents of malaria are declining. 40% of the families in Houdalaye now have drainage tanks underneath their homes for the disposal of wastewater. Those without tanks who continue to throw water out of their houses have learnt to sweep it away with a broom to keep the ground dry. A quarter of LIFE's project budget was spent on training, focused in particular on disease prevention.

LIFE's partner NGO, ANBEP (the National Association for the Wellbeing of the Population) worked through its 18 neighborhood sub-groups, each with between 50 and 80 members. ANBEP organized 36 community meetings in which Health Department officials provided instruction in household waste management, water, health and sanitation, and nutrition to some 8,000 people. 300 unemployed young people were trained as informal public health workers, 102 of them women. "You have to raise people's awareness that all the houses and the streets must be kept clean," says Alpha Ndiaye, President of ANBEP. "You explain how to maintain the wastewater tanks, how to keep children and adults healthy. As a result of all these discussions, people's behavior has changed. When you walk around Yeumbeul today you see a big difference between the neighborhoods where we have worked and other areas. Today, people in Houdalaye are constantly receiving visitors from other places who come to learn from their experience."



Preventing and reversing tendencies of environmental degradation in Senegal are central to poverty reduction efforts in the country. To achieve the goal set forth in resolving this acute environmental problem, the country is doubling its vigilance in fighting poverty and seeking only environmentally friendly development with sustainable results. Senegal's partnership with UNDP is a crucial first significant step in expressing a renewed consciousness to environmental protection. Efforts in water management and protection and dryland preservation as well as regional linkages are vital to sustaining Senegal's ability to achieve sustainable development goals.<sup>3</sup>



## PORTFOLIO

**Alberic Kacou, Resident Representative**

### FSSD\*

UNDP is working to strengthen sustainable development capacity in Senegal across national authorities, the private sector and civil society. Through a joint UNDP/Capacity 21 initiative the project is working to generate a greater understanding of the impediments to sustainable development and aims to uncover new solutions to improving livelihoods.

### WATER

Senegal is participating in a GEF regional transboundary waters management programme, the "Senegal River Basin Water and Environmental Management Programme". The overall goal of this initiative is to ensure the sustainable management of the basin's water resources, biodiversity and environment. To achieve this, the programme is establishing a participatory, strategic environmental framework for water and soil management throughout the basin, and launching a co-operative, transboundary partnership on water and soil management with the other participant countries – Guinea, Mali, and Mauritania.

### LAND

A major land management concern in Senegal is not only man-made degradation, but the huge infestations of locusts that destroy thousands of acres of cropland. UNDP has provided assistance to improve communications technology between regions to aid their fight against future locust invasions.

### BIODIVERSITY

UNDP is supporting the conservation and sustainable use of biodiversity in Senegal through a GEF-funded project to promote Integrated Ecosystem Management in Senegal. The project advocates community-based oversight of globally significant biodiversity, carbon sequestration, and GHG reduction in four distinct landscapes, representing four major ecosystems in the country. The project will also provide support to strengthen technical and institution capacity in the country.



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<sup>3</sup>MDGR 2003 [http://undg.org/documents/143-Senegal\\_MDG\\_Report\\_-\\_Second\\_Report.doc](http://undg.org/documents/143-Senegal_MDG_Report_-_Second_Report.doc); 2UNDP, "Water Governance for Poverty Reduction", 2004: [http://www.undp.org/water/pdfs/241456%20UNDP\\_Guide\\_Pages.pdf](http://www.undp.org/water/pdfs/241456%20UNDP_Guide_Pages.pdf); <http://www.undp.org.sn/html/enviroennements.htm> and <http://www.undp.org.sn/>; "Frameworks and Strategies for Sustainable Development

## SPOTLIGHT

**A New Plan Sets the Course for Biodiversity Conservation<sup>1</sup>**

There are estimated to be 2,000 vascular plant species in Sierra Leone, of which at least 74 are endemic. In addition, the country is home to 15 species of primate, 18 species of antelope, 9 species of fruit bat, many large mammals, including the elephant and hippopotamus, as well as 6 threatened bird species. Threats to this biodiversity have come from logging and forest clearance for agriculture, and excessive burning. With the civil war now over, the Government is in a position to improve management of the environment in general, and its diverse biological resources in particular.

In 2002, UNDP initiated a project to assist the Government to prepare a National Biodiversity Strategy and Action Plan (NBSAP), with funding from GEF of US\$ 275,000, and executed by the Ministry of Lands, Housing, Country Planning and the Environment. The NBSAP defined the status of Sierra Leone's biodiversity and the pressures it is under, and presented options and priority actions to ensure the sustainable, equitable use of this natural resource. Assisted by international consultants on biodiversity planning and strategic frameworks, the project steering committee analysed the results of regional and national sensitisation workshops, identified and developed new economic alternatives and options to seek consensus among stakeholders, and drafted the NBSAP. The document was successfully approved by the Government, and the NBSAP was widely disseminated. In addition, the project ensured the preparation of Sierra Leone's First Country Report to the Conference of the Parties of the Convention on Biological Diversity, thereby fulfilling its commitment.



## BIODIVERSITY

## QUICK FACTS

**CURRENT PORTFOLIO BUDGET**

<b>Total UNDP-GEF and Co-Finance:</b>	\$475,000
<b>Total UNDP and Co-Finance:</b>	\$48,588
<b>Total MPU and Bilateral:</b>	\$278,478
<b>Total:</b>	\$802,066

**Cumulative Total ODS Phased-Out:** 13.9 ODP tonnes



Despite the nation's wealth of natural resources, poverty is endemic in Sierra Leone. The Government has therefore made poverty reduction the central goal of its development strategy. The UN supports capacity-building for national institutions that have the responsibility to track and monitor progress in poverty reduction.<sup>2</sup> UNDP is working to develop policy action plans in order to strengthen national capacity. Programmes are also being crafted to combat climate change and limit the use of ODS. UNDP is also assisting the Government in its efforts on public sector reforms for efficient and accountable service delivery, particularly in the energy sector.

**J.V. Da Silva Angelo, Resident Representative**

## PORTFOLIO

### ENERGY

In Sierra Leone, two GEF-funded climate change initiatives are conducting research on areas for sensitisation and formulation of National Action Programmes for Adaptation (NAPA). The goal of the NAPA is to provide support to the country's efforts to develop adaptation strategies to the adverse impacts of climate change, and to support the preparation of National Communications to the UNFCCC.

### LAND

UNDP is promoting sustainable land management to combat desertification in Sierra Leone. For example, a project to develop the National Action Programme to Combat Desertification will help to counter endemic poverty and threats to subsistence farmers by addressing land degradation and desertification. In addition, this project works toward achieving goals and obligations stipulated under the UN Convention to Combat Desertification.

### BIODIVERSITY

UNDP supported the Government of Sierra Leone to develop a National Biodiversity Strategy and Action Plan (NBSAP) to ensure biodiversity conservation in the country and enable it to meet its obligations under the Convention on Biological Diversity. Building on existing knowledge, activities under the NBSAP process included needs assessments, sensitisation workshops, regional and national workshop to disseminate findings and prepare the strategy, the presentation of a National Reports to the CBD and an action plan for implementation of the strategy.

### CHEMICALS

UNDP is supporting Sierra Leone with the implementation of its refrigerant management plan under the Montreal Protocol by focusing its assistance in three areas. Transfer of technical expertise, wherein equipment and training are provided to improve service practices and maintenance within the refrigeration sector; a mobile air-conditioning recovery/recycling programme; and an incentive programme for the commercial and industrial refrigeration end-user sector.

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## SPOTLIGHT

Creating Capacity to Implement the CDM<sup>1</sup>

The Clean Development Mechanism (CDM) under the Kyoto Protocol allows developing countries to host GHG mitigation projects, yielding certified emissions reductions, which are sold to industrialised countries to help them meet their emissions reductions obligations under the Protocol. Developing countries can potentially gain sustainable development benefits from these projects, but the CDM process has proven to be complex, time-consuming and challenging. Several steps need to be taken before the host country, through its Designated National Authority (DNA), approves a project, and emissions reductions are generated and sold to developed country buyers. UNDP is committed to supporting developing countries respond to climate change by helping them develop capacity to effectively engage in CDM activities.

South Africa established its DNA in late 2004. Responding to South Africa's needs on CDM governance, UNDP implemented a project with the Department of Minerals and Energy to identify and undertake appropriate activities for strengthened institutional capacity. The project convened a national workshop to introduce the new DNA and its operating procedures, assisted the DNA to develop and improve the CDM project approval criteria – including refinement of sustainable development indicators – and provided a capacity needs analysis of the government agencies involved in DNA functions.

The project successfully enhanced the profile of the DNA, and improved understanding of its roles and procedures, trained DNA staff and other relevant government employees on the CDM project cycle and DNA approval procedures, and developed guidance materials to support DNA staff. The project has had a positive impact on national capacity to better understand and manage the CDM process. Overall, it has made the CDM procedures clear and transparent in South Africa, providing positive signals to the private sector to design project proposals, and an indication that the DNA is ready to review them for approval.

## CLIMATE CHANGE

## QUICK FACTS

## CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$146,124,538
<b>Total UNDP and Co-Finance:</b>	\$194,166
<b>Total:</b>	\$146,318,704





The current South African government recognises that efforts to protect the environment need to be contextualised within the larger framework of sustainable development addressing the root causes of environmental degradation, including socio-economic factors such as unemployment and poverty. UNDP South Africa's objective is to promote innovative legislation and action to protect the environment, while contributing to the eradication of poverty in partnership with all levels of government, civil society, and the private sector. Within the framework of sustainable development, UNDP South Africa supports the protection and sustainable use of natural resources and the promotion of responsible tourism for the benefit of all South Africans.<sup>2</sup>



**Scholastica Kimaryo, Resident Representative**

## PORTFOLIO

### FSSD\*

To enable the development of national capacities for sustainable development, and the fulfilment of South Africa's commitments to the three Rio Conventions on biodiversity, climate change and desertification, UNDP is supporting the development of a GEF-funded National Capacity Self-Assessment (NCSA) process. The assessment takes stock of capacity building activities, plans and strategies within the thematic areas of the Conventions, and will produce an Action Plan to address the capacity gaps identified.

### ENERGY

UNDP is supporting South Africa to adopt environmentally friendly energy technologies that promote sustainable development. Solar water heaters and solar-powered cookers have been introduced by removing financial, technical and organisational barriers to implementation, with GEF-funding. The country is also seeking ways to harness wind energy and develop on-grid power generation systems. Lastly, with funding from UNDP's Energy Thematic Trust Fund (TTF), the Global Village Energy Partnership focuses on integrated energy centres (see Spotlight). The TTF is also developing strategies on how to link to LP Gas initiatives, make better use of the integrated energy centres, and involve the private sector, particularly women entrepreneurs, in taking up business opportunities involving energy.

### BIODIVERSITY

UNDP is supporting South Africa to conserve biodiversity and eradicate poverty with the participation of civil society, the private sector and the government. For example, in the Cape Floristic Region, where adjacent marine ecosystems and coastal wild-life are prominent generators of tourism revenue, UNDP is implementing a project to provide income-generating activities and increased development knowledge. At a strategic level, the GEF-funded National Biodiversity Strategy and Action Plan (NBSAP) provides the key framework incorporating all the biodiversity initiatives, and is assisting the department of Environmental Affairs and Tourism to develop action plans, building on existing national policies.



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CEF Pty Ltd  
GTZ  
WWFSA  
Wilderness Foundation  
FFI  
World Bank

<sup>1</sup>UNDP, "Institutional Capacity Development for the CDM in South Africa: Final Report of Project Activities in South Africa", 2005.; <sup>2</sup><http://www.undp.org.za/environment.html>; \*Frameworks and Strategies for Sustainable Development

## SWAZILAND



### Progress Towards Environmental Sustainability

Swaziland covers an area of 17,364 square kilometers, 11% of which is arable land. The Government has declared its commitment to “provide a climate and infrastructure that will progressively maximize the quality and security of the life of the people of Swaziland and make the best use of the country’s natural and human resources.”

About 49% of the total land area is vulnerable to desertification and degradation. Erosion is prevalent in all the agro-ecological zones, but more so in communal grazing Swazi Nation Lands. Overstocking and cattle movement are major contributing factors to this problem. A programme for the improvement of degraded Swazi Nation Land involving communities, the Government, non-governmental organizations, and a team of experts has initiated programmes in 3 target pilot areas covering 618 square kilometers.

Access to sanitation has fluctuated between 63% and 80% between 1985 and 1998. Access to water declined from 60% in the mid-1990s to 56% in 1998. Overall, an estimated 49% of the population does not have access to safe drinking water, and 30% lack access to proper sanitation, leading to a high incidence of water-borne diseases.

Challenges to environmental sustainability in Swaziland include: limited collaboration between government sectors concerned with water, sanitation and health; inadequate planning of grazing, farming and habitats, and lack of enforcement of legislation; and limited utilization of indigenous knowledge systems in central planning and management activities.<sup>1</sup>

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$1,117,100
<b>Total UNDP and Co-Finance:</b>	\$205,000
<b>Total:</b>	\$1,322,100

## SPOTLIGHT

### Environmental Education Programme Raises Awareness<sup>2</sup>

The National Environmental Education Programme (NEEP), managed by the Swaziland National Trust Commission (SNTC) – a government unit under the Ministry of Tourism, Environment and Communication – supports public awareness activities on environmental issues in Swaziland, in order to promote the understanding, acceptance, application and evaluation of environmental conservation principles and practices by the people of Swaziland, for a better quality of life. Programme activities include the periodic publication of pamphlets and brochures for public circulation, and a twice-weekly radio broadcast on environmental issues and concerns, which is broadcast given in the local language, Siswati, to ensure broad coverage. NEEP is also a key player in ensuring that UN Environment Days are covered by the media each year to further raise public awareness.

Initial seed funding for this initiative was provided by GEF, and SNTC has since continued to fund the radio programmes. UNDP has supported the programme by facilitating the communication of important issues and debates in the environmental arena through these radio programmes in simple language for the public to follow. This was enabled through very effective information sharing via UNDP, from GEF, UNEP, the World Meteorological Organisation, and other multilaterals working on environmental issues in the country.

The initiative has been very successful in broadening the awareness and understanding of the general public – and young people particular – on environmental issues. This is evident from the growing number of school environmental clubs in the country, and bodes well for future sustainable development in Swaziland.

# STRATEGIES

UNDP Swaziland is supporting capacity development activities to strengthen institutions for planning, monitoring, and legislation.<sup>3</sup> As a signatory to multilateral agreements, Swaziland is reviewing its needs and priorities for the implementation of the protocols on biodiversity, climate change, and land degradation. UNDP also supports efforts that improve effective environmental management, increase environmental education and awareness, enable sustainable use of biodiversity, and improve pollution control and environmental health.



**Chinwe Dike, Resident Representative**

## PORTFOLIO

### FSSD\*

UNDP is supporting the Government to improve capacities for sustainable development planning. For example, the GEF-funded NCSA process is working to identify the appropriate needs and priorities for capacity development to assist the country's implementation of the Rio Conventions on Biodiversity, Climate Change and Desertification. In addition, the National Strategy for Environmental Management, supported by UNDP's Capacity 21 initiative, is designed to increase environmental education in the country, establish efficient management and use of biodiversity and develop proper waste management and pollution control.

### ENERGY

In terms of Climate Change, UNDP has assisted Swaziland in the preparation of its First National Communication to the UNFCCC, with funding from GEF. In addition to preparing the document itself, the project also played a crucial role in the enhancement of general awareness and knowledge on climate change-related issues in Swaziland, as well as making an inventory of GHG emissions, analysing potential abatement and adaptation measures, and prepared a National Action Plan to address climate change and its adverse impacts.

### BIODIVERSITY

At the strategic level, UNDP is supporting Swaziland to incorporate biodiversity conservation considerations into national planning through a GEF-funded project developing a National Biodiversity Strategy and Action Plan (NBSAP) with the Swaziland Environment Authority. The NBSAP builds on and reinforces existing national strategies and plans, such as the National Environmental Action Plan, and is enabling Swaziland to fulfil its obligations to the Convention on Biological Diversity.

### CHEMICALS

Swaziland is participating in a regional methyl bromide (Me. Br.) phase-out project being implemented by UNDP for low-volume consumers in Africa. This initiative will allow the country to phase-out its Me. Br. consumption in the soil sector, and put in place appropriate Me. Br. use regulations, taking into consideration the country's pesticide regulatory regime. Upon completion of the project, Swaziland will have achieved a 20% phase-out of Me. Br.



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### PARTNERS

**Some of our Partners working with UNDP and the Government in Swaziland**

UNEP  
SNTC

<sup>3</sup>MDGR 2003 [http://www.undg.org/documents/5564-Swaziland\\_MDG\\_Report\\_-\\_MDGR\\_Part\\_2.pdf](http://www.undg.org/documents/5564-Swaziland_MDG_Report_-_MDGR_Part_2.pdf); UNDP Swaziland questionnaire 2005; NEEP website: <http://www.sntc.org.sz/programs/need.html>; [http://www.undg.org/documents/1943-Swaziland\\_UNDAF\\_-\\_Swaziland\\_UNDAF\\_May\\_03.pdf](http://www.undg.org/documents/1943-Swaziland_UNDAF_-_Swaziland_UNDAF_May_03.pdf); \*Frameworks and Strategies for Sustainable Development





### Progress Towards Environmental Sustainability

Since 1990, Tanzania has made marked progress in developing a strategy for sustainable development. A National Environmental Action Plan was produced in 1994, a National Environmental Policy was adopted in 1997 and work on a National Strategy for Sustainable Development was initiated in 2000. Implementation of the action plan and the principles laid down in the policy is ongoing. However, despite this strong policy framework, it will be challenging for Tanzania to reverse the loss of its environmental resources, unless significant progress is made in the reduction of poverty levels.

Tanzania has a rich natural endowment, with some 23% of its territory established as protected areas to conserve its biodiversity. However, these natural resources have come under increasing pressure, and effective implementation of the sustainable development strategy could be compromised by a number of factors, including: insufficient institutional framework for coordination; limited governmental capacity for environmental management; insufficient involvement of local authorities and communities in environmental management and conservation; and poverty.

Overgrazing, ground fires and felling of trees for various uses - some 91% of the population relies on traditional fuels for energy use - are reducing the regeneration of plants and animals. Some 60% of the land total is classified as dry lands, threatened by desertification. The result is a negative spiral: while poverty contributes to environmental degradation, so environmental degradation contributes to the intensification and perpetuation of poverty.

There are clear signs that the government's recent efforts to increase public awareness about the importance of environmental management and conservation are bearing fruit. For example, there are now some 159 Community Based Organizations and NGOs that are devoted to environmental issues. These organizations are often important partners for implementing various programmes related to environmental conservation, management and sanitation in both urban and rural areas. These community-based efforts have been complimented by public education programmes on the environment, which are broadcast on radio and television and reported in the print media. Together, these efforts are helping to raise the public's interest in, and commitment to, environmental conservation and management in Tanzania and in effect, increase prospects for achieving MDG 7 for environmental sustainability.<sup>1</sup>

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$31,256,471
<b>Total UNDP and Co-Finance:</b>	\$2,330,000
<b>Total MPU and Bilateral:</b>	\$175,134
<b>Total:</b>	\$33,761,605

**Cumulative Total ODS Phased-Out:** 106.5 ODP tonnes

## SPOTLIGHT

### Community-based Land Management Protects Biodiversity and Reduces Poverty<sup>2</sup>

Having being spurred into action in 1993 by government plans for the use of local forests, Tanzania's Suledo Forest Community has regained control over land management and devised a system of unique forest planning zones.

Harnessing their knowledge of the species-rich Miombo forests of Tanzania's Arusha region, the Suledo Forest Community have established an effective system of village-based forest management that meets the diverse needs of the local people. To add weight to community anti-poaching rules, villages in the area have passed supportive by-laws, and members of local communities now patrol each forest zone to ensure enforcement. As a result of these interventions, villagers now have access to a greater range of forest products, including sustainable timber and products such as fruits, nuts, mushrooms and medicines. Water supply has also been improved, sustainable tree nurseries, vegetable gardens and orchards have been introduced, and maize production has increased from 15 to 25 bags per hectare.

UNDP's Equator Initiative awarded the Suledo community with a US\$ 30,000 grant in 2002, in recognition of their outstanding community efforts for poverty reduction and biodiversity conservation. Through a participatory decision-making process among the community members, it was decided that US\$ 18,000 will be equally distributed among the 9 villages comprising Suledo (US\$ 2,000 per village) for new development projects in each village. Design and implementation of the projects will be participatory; all community members in their respective villages will be given the opportunity to share ideas about the establishment of the project, and the development of implementation strategies. The remaining US\$ 12,000 will be used to strengthen projects already in progress, and to address the problem of encroachment on Suledo by introducing village-based forest management initiatives in encroaching villages.



Unsustainable agricultural activities, over-encroachment of land along with excessive logging, are the greatest threats to biodiversity in the region. Environmental degradation in these areas has been going on for a number of years as a result of inadequate capacity to control human activities. The conservation and sustainable use of biodiversity is increasingly seen as vital to national poverty reduction frameworks as well as to the achievement of the global MDGs. While environmental conservation activities are a national responsibility, it is individuals who actually conduct the day-to-day activities of conserving the environment. So urging and educating individuals to become more aware of environmental issues is equally vital.



**John Hendra, Resident Representative**

## PORTFOLIO

### FSSD\*

UNDP is supporting Tanzania to successfully integrate sustainable development considerations into national poverty reduction planning. Through a DFID-funded project, an environmental advisor is assisting key national authorities on the integration of environmental issues into the PRS. In addition, UNDP is supporting efforts to increase the knowledge base on poverty-environment linkages, providing improved access and use of environmental data in the PRS process, with funding from DANIDA and UNDP's DDC and Poverty-Environment Initiative. Finally, with GEF-funding, UNDP is supporting the development of the NCSA, which reviews national capacity needs for participation, regulatory regimes and funding mechanisms for environmentally sustainable development.

### ENERGY

To increase access to sustainable energy services, and reduce poverty and GHG emissions, UNDP is supporting Tanzania to engage the private sector and the general public on the benefits of modern energy services. UNDP, GEF, UNESCO, UNDP's Sustainable Energy Thematic Trust Fund (TTF), and the Government are also supporting the Global Village Energy Partnership (GVEP), which promotes access to modern energy services to poor rural and peri-rural households and is working to transform the solar PV market in rural Mwanza, Tanzania. The TTF has also supported the scaling-up of renewable energy technologies in 3 districts following an earlier GEF project, with the building of over 2000 improved stoves, planting of 130,000 tree seedlings, and construction and training on the usage of a biogas plant, improving incomes, health and forest conservation.

### BIODIVERSITY

UNDP is supporting the conservation and sustainable use of biodiversity in Tanzania. For example, UNDP is implementing a project for the conservation of the Eastern Arc mountain forests in Tanzania, with funding from the Government, GEF, DANIDA and the World Bank. The project is working to prevent over-encroachment on the land, and reduce excessive logging in the region through the implementation of community-based conservation and sustainable agricultural activities.

### CHEMICALS

Tanzania is participating in a regional methyl bromide (Me. Br.) phase-out project being implemented by UNDP for low-volume consumers in Africa. This project provides policy strengthening assistance to prevent the introduction of Me. Br. Use in the country.

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### PARTNERS

#### Some of our Partners working with UNDP and the Government in Tanzania

Government of France	World Bank
DANIDA	IUCN
DFID	SIDA
Government of The Netherlands	
UNESCO	
Government of Belgium	

## SPOTLIGHT

**New Pilot Project Arouses Passion for Sustainable Land Management<sup>1</sup>**

Deforestation and slash-and-burn agricultural methods continue to place intense pressure on Togo's environment. These phenomena reduce soil fertility, as well as stranding and eventually silting-up rivers. Forest cover is currently disappearing at an annual rate of 15,000 hectares. The littoral, instead of being a place of tranquillity, is the subject of many types of aggressions: human and industrial waste from phosphate production, refuse, and coastal erosion

Together with the National Action Programme to Combat Desertification, UNDP assisted Togo in a 6-month pilot project involving four NGOs working in the central and Kara regions. GRADSE and PTM focused on technical capacity on erosion and fertilisation management and work in the central regions. SAR-AFRIQUE and PADES specialise in, respectively, soil conservation, and the impacts of land degradation on economic and social development, and assisted indigenous groups in the Kara region on sustainable harvesting methods. Co-financing for the NGO involvement was brought about through UNDP regular resources and funds from the Global Mechanism totalling US\$ 60,000. The project demonstrated the planting of seedbeds, flood mitigation techniques and training methods on the proper use of compost storage.

Although the tangible results of this pilot project cannot be assessed until the end of the next rainy season, the passion it inspired in the targeted communities was evident. Project activities included training sharecroppers in anti-erosion techniques, study trips between other communities, knowledge-transfer sessions to prepare the next generation on sustainable harvesting methods, and small-stone floodbanks were constructed in many villages. Neighbouring communities have also caught the "inspirational bug" and have since expressed interest in replicating these initiatives.



## LAND

## QUICK FACTS

**CURRENT PORTFOLIO BUDGET**

<b>Total UNDP-GEF and Co-Finance:</b>	\$741,000
<b>Total UNDP and Co-Finance:</b>	\$98,650
<b>Total MPU and Bilateral:</b>	\$290,000
<b>Total:</b>	\$1,129,650

**Cumulative Total ODS Phased-Out:** 13.3 ODP tonnes



Togo is confronted with environmental problems generated by the degradation of the natural resources and the frame of life. Forest cover disappears at annual intervals of 15,000 hectares. The institutional and legal device set up during the middle of the 1980's did not produce all the discounted effects. To deal with these problems, three solutions were defined by the Government in collaboration with the UN in the United Nations Development Assistance Framework: The national Action Plan to Combat Desertification, the preparation of a National Adaptation Plan of Action and the promotion of an environmentally ethic consciousness. UNDP has also assisted Togo in developing its National Water Policy Strategy.<sup>2</sup>

## PORTFOLIO

**Fidele Sarassoro, Resident Representative**

### FSSD\*

UNDP is supporting the Government to effectively manage its water resources, by providing assistance to the National Water Policy Strategy. The project is conducting legal, institutional and environmental studies to determine a priority action plan that will promote the process of integrative and participative management of the water resources in Togo. Funding is provided from UNDP regular resources.

### ENERGY

To assist Togo in addressing and adapting to climate change issues, GEF-funding is supporting a project to enable the country to fulfill its obligations under the UN Framework Convention on Climate Change (UNFCCC). The project includes a climate change inventory and support in the preparation of the Second National Communication to the UNFCCC.

### CHEMICALS

Three projects are currently being implemented in Togo in the area of chemicals, all focusing their assistance on the refrigeration sector, specifically in implementation of the country's refrigerant management plan. The objectives of the plan include establishment of a recovery and recycling scheme wherein 30 recovering machines, 2 recycling machines and 2 MAC recovery and recycling units will be procured for the country; training workshops for service technicians; as well as an incentive programme for the commercial and industrial end-user refrigeration sector. In addition, a separate monitoring component designed to ensure sustainability of the plan's objectives is being implemented. The country is also participating in a regional methyl bromide phase-out project being implemented by UNDP for low-volume consumers in Africa.



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### PARTNERS

**Some of our Partners working with UNDP and the Government in Togo**

UNEP  
IFAD  
Global Mechanism

<sup>1</sup>UNDP Togo Questionnaire, 2005.; <sup>2</sup><http://www.tg.undp.org/reperes.html>; \*Frameworks and Strategies for Sustainable Development



## MDG7

**Progress Towards Environmental Sustainability**

More than 15% of Uganda is covered in water. However, these water resources are not evenly distributed. There are wide fluctuations in the availability of water between periods of wet and dry years, leading to floods, droughts and uncertainties over the timing of wet seasons. High population density, deforestation and poor agricultural practices are scaling down the availability of water resources. Severe soil erosion is reported in the mountainous and hilly areas of the eastern and northeastern parts of the country, as well as in the pastoral livestock areas.

Substantial progress has been made with regard to improving access to safe water over the past ten years. Rural coverage increased from 24% in 1991-1992 to 55% ten years later, while urban coverage increased from 60% to 62% during the same period. The Government's target is to provide safe drinking water to 100% of the urban population and the rural population by 2010 and 2015, respectively. Although lack of data for the 1990s prevented the calculation of MDG target 10 for the urban areas, it is evident that Uganda will surpass the MDG target much earlier than 2015.

More than 50% of Uganda's urban community is living in informal unplanned settlements, with a majority of these poor being unemployed due to lack of skills. With absence of security of tenure, they cannot access any financial support for investment. They are victims of health hazards, lack of clean water and inadequate sanitation facilities. Their children suffer from deprivation and are exposed to disease and limited education. Female-headed households are more common in urban areas (31%) than in rural areas (27%) and continue to suffer gender discrimination.

## QUICK FACTS

**CURRENT PORTFOLIO BUDGET**

<b>Total UNDP-GEF and Co-Finance:</b>	\$14,132,609
<b>Total UNDP and Co-Finance:</b>	\$892,000
<b>Total:</b>	\$15,024,609

**Cumulative Total ODS Phased-Out:** 3.6 ODP tonnes

The Ugandan government aims to mainstream the concerns of the urban poor and slum dwellers into the national development agenda. Some studies have already been conducted, including that of the UN Habitat with a view to addressing MDG 7 targets.<sup>1</sup>

## SPOTLIGHT

**Rainwater Harvesting Increases Access to Water<sup>2</sup>**

The Nalukonge community is located within Uganda's Cattle Corridor, a semi-arid belt used by semi-pastoral communities to graze and water their livestock. The introduction of commercial ranching has reduced the proportion of communal land available to pastoral communities and limited their access to water. Their main coping strategy has usually involved long-distance herding of cattle southwards into neighboring districts, and sometimes as far a field as Tanzania. But even with this strategy, communities have suffered declines in livestock productivity, as well as encountering increasing conflicts with the communities they pass through in search of water and pasture. Moreover, women and children left behind also lack sufficient water for domestic use.

In 1998, the Nalukonge received a US\$ 5,000 grant from UNDP to establish additional water sources for livestock and reduce overcrowding and pressure on existing water sources. The community accepted a 70:30 formula for sharing the cost of constructing valley tanks to harvest rainwater for both human and livestock consumption. Besides meeting 30% of the costs of the tanks, the community established mechanisms to ensure equitable access to and cleanliness of the valley tanks premises. Responsibilities were equitably shared between women and men. Strong partnerships developed with both the local government and a local NGO that helped with training and capacity building.

Following the positive impact of the three initial valley tanks constructed, the Nalukonge decided to mobilize their own resources and construct additional tanks themselves using the training they had received.



As a landlocked country in the Great Lakes Region and with landscapes ranging from wetlands to arid savannah, Uganda is naturally endowed with diversified potential for growth and sustainable development. However, the quality of the country's natural resources is declining.<sup>3</sup> With enough assistance, most of the environmental problems can be alleviated with little resources at the local level. Simple measures taken at home, in the workplace, and across cities and communities, can make a profound difference to people's well-being. Basic household hygiene practices, local level waste disposal regulations — these are all simple, cost-effective measures that can help save lives and improve the standard of living.



**Auke Lootsma, Resident Representative**

## PORTFOLIO

### ENERGY

To increase access to sustainable energy services, reducing poverty and GHG emissions, UNDP is supporting a GEF-funded pilot solar photovoltaic (PV) project to provide rural electrification. Extensive awareness-raising activities promoted the use of PV panels, while vendor loans and micro-enterprise facilities have been used to provide finance for this initiative. The Uganda Renewable Energy Association has since grown from 3 to over 20 companies. At the international level, UNDP is supporting the preparation of Uganda's National Communication to the UNFCCC, with GEF funding. This includes a national GHG inventory, and assessment of the country's vulnerability to the impacts of climate change.

### LAND

UNDP is promoting the adoption of sustainable land management practices in Uganda, through specialist support from its Drylands Development Centre. For example, a regional project, focusing primarily on the cattle corridor, is working to ensure the prioritisation and integration of environment and drylands issues into local planning and budgetary processes, as well as improving market access for drylands commodities in Uganda, Kenya and Tanzania. At the national level, a project to promote Nerica 3 rice is furthering sustainable, economic land-use, as yields are higher and more pest-resistant than other varieties, while a project to harmonise land tenure is working to consolidate separate land rights bills with the constitution and land act.

### BIODIVERSITY

UNDP's support to biodiversity conservation is focused on forest ecosystems in Uganda. For example, under its Capacity 21 initiative, UNDP is assisting the Forestry Department to strengthen financial planning and management services, while GEF-funding is promoting biodiversity conservation in the Albertine Rift Forests Protected Areas in Western Uganda, and a GEF regional forestry initiative is working to protect biodiversity at four cross-border sites. In addition, UNDP is supporting NGOs in increasing awareness, conservation and income-generating activities in the Eastern and South Western regions of Uganda.

### CHEMICALS

UNDP's contribution to Uganda's compliance programmes under the Montreal Protocol focused on the development of a national programme for recovery and recycling of refrigerants in the refrigeration and air conditioning sectors. The technology transfer component of the programme involved procurement of 12 recovery units and the establishment of a recycling centre. In terms of technical assistance and capacity development, 2 training workshops for service technicians of refrigeration and air conditioning equipment were conducted and a monitoring system to verify the amount of CFC being phased-out was instituted.

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### PARTNERS

**Some of our Partners working with UNDP and the Government in Uganda**

Nordic Fund  
Nile Basins Initiative



### Progress Towards Environmental Sustainability

Zambia's ecosystems are diverse and support many livelihoods. However, urgent measures need to be taken in order to protect the environment and prevent the degradation of natural resources. Zambia aims to approach its environmental sustainability challenges through the integration of MDG principles in its national development agenda.

Forests in Zambia cover about 60% of the total land surface area. An estimated 3,000 flora species and around 3,500 fauna species subsist in protected areas, which account for 40% of the total territory.

Zambia has developed several programmes focused on regulating pollution rates, promoting conservation through national parks and biodiversity reserves and developing strategies towards the efficient use of energy in the country. Despite these important efforts, there is a prevalent weak institutional capacity to enforce environmental laws and to coordinate efforts aiming to manage trans-boundary natural resources.

Zambia has shown slight improvement in achieving the MDG target for access to safe drinking water. The proportion of the population with access to water increased from 48% in 1992 to 51% in 2002. From a regional perspective, 37% of rural areas had access to safe drinking water, whereas 89% of urban residents enjoyed access to water. Efforts to provide more water coverage in rural areas, as well as to reduce water-borne diseases such as diarrhea, dysentery and cholera, are critical to achieving this MDG target.

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$30,798,000
<b>Total UNDP and Co-Finance:</b>	\$5,745,000
<b>Total:</b>	\$36,543,000

**Cumulative Total ODS Phased-Out:** 7.2 ODP tonnes

Despite the unavailability of data on the condition of slum dwellers in Zambia, some observations can be made. High construction costs, inadequate strategic planning and weak allocation of economic resources towards infrastructure are making MDG target 11 difficult to achieve. Furthermore, the establishment of improved data and information systems as well as the promotion of foreign and private sector participation have yet to be enforced and have hampered Zambia's efforts to properly integrate MDG principles into its national development agenda.<sup>1</sup>

## SPOTLIGHT

### Closing Gaps in Environmental Legislation to Support Development<sup>2</sup>

Until the 1980s, Zambia was one of the most prosperous nations in Sub-Saharan Africa, classified by the United Nations as among the low-to-middle income countries. However, declining GDP since the mid-1970s, drastic reduction in copper production –representing 95% of export earnings – and rising poverty levels caused an abrupt reversal. By 1995 was Zambia classified as one of the LDCs, with at least two-thirds of the population living below the poverty line. Recent analysis reveals a link between Zambia's worsening economic situation and the current rate of environmental degradation. The poorest are almost exclusively reliant on the environment for their livelihoods and tend to be most affected by the state of natural resources.

Various government departments in Zambia currently implement approximately 9 sectoral policies and 33 pieces of sectoral legislation with direct effects on environmental management in Zambia. However, without a national environmental policy, Zambia faces challenges to the effective implementation of its obligations under the Rio Conventions on Biodiversity, Climate Change and Desertification. In 2005, to address this problem, UNDP and the Ministry of Environment, Tourism and Natural Resources began the National Capacity for Self-Assessment (NCSA) process, with support from the GEF, and project financing of US\$ 321,000. This 18-month assessment aims to identify, analyse and prioritise Zambia's national capacity constraints and needs in relation to implementation of the Conventions that will contribute to poverty reduction and the MDGs, and to prepare a national strategy and action plan for developing the capacities needed to address global environmental management challenges and to fulfil national obligations under the Conventions.

The NCSA process will tighten gaps in legislative actions, fostering a more efficient approach to environmental protection, while demonstrating sustainable use of biodiversity and, ultimately, the return of Zambia's prosperity.

Zambia's drive towards fulfilling the MDGs faces many challenges. In the case of MDG 7, one of the critical challenges is the restoration of the environment that has been much degraded through loss of biodiversity, soil erosion, water pollution and poor disposal of solid waste. UNDP support, complemented by the GEF, provides strategic and catalytic support for effective management of the environmental sector.<sup>3</sup> Conservation and sustainable use of biodiversity is increasingly recognized as an essential component of global efforts to reduce poverty and achieve the MDGs.



**Aeneas Chapinga Chuma, Resident Representative**

## PORTFOLIO

### FSSD\*

UNDP is supporting Zambia to develop strategies and increase national capacity to protect the environment and support sustainable development. For example, with UNDP funding, the Environmental Protection and Natural Resources Management Project is working to develop a National Environmental Policy; adapt international conventions on environmental protection and natural resources management to the national level; and develop gender mainstreaming tools for the environment and natural resources sector. In addition, the GEF-funded NCSA process helps Zambia determine its priorities for capacity building to implement the three Rio Conventions (see Spotlight).

### LAND

To promote the adoption of sustainable land management practices in Zambia, and improve rural livelihoods, UNDP funded a project to provide training, production, research and development of sustainable agricultural practices at the Kasama Youth Training Centre. The project worked to adapt Benin's "Songhai Centre Model" to the Zambian context. The model emphasizes use of local resources, hybridisation of traditional and modern agricultural practices, encourages individual and communal initiatives. The adaptation of the Songhai experience from Benin to Zambia is an excellent example of South-South cooperation.

### BIODIVERSITY

UNDP is promoting the conservation and sustainable use of globally significant biodiversity in Zambia. Policy and governance, institutional capacity, and protected areas management are key drivers in safeguarding Zambia's ecosystems from human-induced pressures. For example, a GEF-funded National Protected Areas System incorporating these drivers is being developed, with the active participation of the public and private sectors, local communities, and civil society organizations.

### CHEMICALS

Zambia is participating in a regional methyl bromide (Me. Br.) phase-out project, implemented by UNDP for low-volume consumers in Africa. This project provides policy-strengthening assistance to prevent the introduction of Me. Br. use in the country.



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### PARTNERS

#### Some of our Partners working with UNDP and the Government in Zambia

World Bank  
Government of The Netherlands  
FINNIDA DANIDA  
NORAD AfDB  
GTZ



## SPOTLIGHT

Energy Efficiency Improvements in SMEs<sup>1</sup>

A significant proportion of the Zimbabwean population works for small and medium-sized or informal enterprises (SMEs). These enterprises have little access to information on energy efficiency improvements, and are often too focused on their economic survival to consider environmental impacts or how they could benefit from efficiency improvements. This means that inefficient stoves continue to be used, harming local air quality and workers' health.

In 2001 the GEF Small Grants Programme contributed US\$ 48,720 to help the NGO Heritage Energy and Environment implement a project to examine the possibilities and benefits of improving energy efficiency in SMEs. Two micro-finance institutions, EMPRETEC Zimbabwe and Zambuko Trust, helped identify 12 enterprises to participate in the project, which undertook energy efficiency improvements and built capacity to understand and manage their energy use.

Improvements have so far been undertaken by 7 of the 12 enterprises. For example, in the Beverly Cakes confectionery three domestic stoves were replaced with a new, more efficient industrial-sized oven. Energy consumption was reduced from an average of 1,300 kWh/month to approximately 400 kWh/month. In the MoCliff Engineering foundry workshop a new castings machine was installed, which is expected to reduce molten metal loss by up to 30%. In Maggie's Kitchen a wood-fired open-grate cooking system is to be replaced with an improved stove.

As a result of the project there have been improvements in energy efficiency, reducing GHG emissions, to the benefit of the global environment. In addition, local air quality is expected to increase, since efficient stoves create less smoke. Furthermore, the reduction in molten metal loss can reduce waste disposal problems and improve the local environment, while stove improvements help improve health conditions for workers and savings in energy costs can translate into increased income. Efforts are now underway to scale-up this project to receive a medium-sized GEF grant.

## CLIMATE CHANGE

## QUICK FACTS

## CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$2,193,400
<b>Total UNDP and Co-Finance:</b>	\$2,210,621
<b>Total MPU and Bilateral:</b>	\$44,000
<b>Total:</b>	\$4,448,021





The major objectives of the CHIEHA programme were to provide awareness about the need for communities to conserve and sustainably utilize biodiversity in and around the Sangwe communal lands, the Great Limpopo Trans frontier Park and their environs. Also, the program aimed to restore a sense of pride in the local and indigenous cultures and traditions of the people. UNDP puts emphasis on environmental education and awareness to all sectors of the society, particularly the young.



**Agostinho Zacarias, Resident Representative**

## PORTFOLIO

### FSSD\*

Zimbabwe's commitment to sustainable development began with support to the national preparations to the World Summit on Sustainable Development (WSSD) including preparation of the national report, attendance at the Summit and national advocacy on the WSSD. UNDP is now supporting the formulation and implementation of a national strategy on sustainable development and other WSSD follow-up activities as part of Zimbabwe's obligations.

### LAND

UNDP's project, "Emergency Support for Land Reform and Agriculture Development in Zimbabwe" supports national dialogue and emergency support on land and agrarian reform, such as rehabilitation and development of irrigation schemes. Additional emphasis is placed on institutional strengthening of the Ministry of Agriculture and Rural Development for provision of land and agricultural support services to farmers.

### BIODIVERSITY

The GEF-funded National Biodiversity Strategy and Action Plan process identified areas that require attention to adequately promote biodiversity and sustainable use in Zimbabwe. A follow-up project is working to create incentives for local communities and individuals to undertake conservation, while ensuring access to genetic resources and benefit sharing. GEF is also funding a Traditional Medicine Project that promotes the conservation, sustainable use and cultivation of endangered medicinal plants in Zimbabwe by developing a legal framework for their use, and equitable sharing from their benefits. The project is implemented in the districts of Matobo, Bulilima, Mangwe, Chipinge and Chimanimani.

### CHEMICALS

With the support funding from the Multilateral Fund of the Montreal Protocol, UNDP has managed initiatives under the Montreal Protocol compliance regime for the past seven years in Zimbabwe. Currently, the Government of Zimbabwe and UNDP are developing a project for the reformulation of the solvent sector technical assistance, as well as a methyl bromide (Me. Br.) phase-out project in the post-harvest sector that once approved, will be implemented in tandem with a UNIDO-managed Me. Br. Project in the soil sector.

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### PARTNERS

**Some of our Partners working with UNDP and the Government in Zimbabwe**

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# ARAB STATES

Algeria  
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## REGIONAL SPOTLIGHTS

**The Arab Water Council and Integrated Water Resources Management in the Arab World <sup>1</sup>**

There is no doubt that the Arab Region is facing the most challenging water resources conditions in the world. The per capita share of renewable water resources is currently under 500 m<sup>3</sup>/capita/year in about 70% of the Arab countries. These severe conditions have led many countries in the region to fossil groundwater exploitation, and sea water desalination, which eventually translates into high water development costs and adverse impacts on the environment. More than 65% of the renewable water resources are transboundary and originate outside of the region. About 50 million people lack access to safe drinking water and about 80 million people lack access to proper sanitation in the Arab Region.

To achieve the Millennium Development Goals (MDGs) of reducing by half the percentage of people without access to safe drinking water and proper sanitation by 2015, the Arab Region will need to provide drinking water services to about 83 million more people, and will need to provide sanitation services to about 96 million people, leaving another 83 million people without access to drinking water services and 96 million people without access to proper sanitation services. Threats of water pollution in the region can pose substantial constraints in rendering the scarce available water resources out of reach.

Recognizing these staggering facts, UNDP has been supporting countries of the region to achieve these targets, and within this context, has supported the establishment of the first ever Arab Water Council (AWC). UNDP has partnered through AWC Interim Technical Secretariat, the Centre for Environment and Development for the Arab Region and Europe (CEDARE), to carry out a comprehensive review of the status of developing IWRM plans in the Arab Region and to assess the capacity development needs of countries to implement these plans. A regional programme on IWRM is evolving with a number of countries from the region selected as pilot countries to either learn from their IWRM experiences or to assist them formulate IWRM strategies and policies that would provide better water services and access to the different sectors of the community, thus bridging the gap between supply and demand in a cost effective manner.

**Preserving the integrity of the Red Sea and Gulf of Aden<sup>2</sup>**

In comparison with other semi-enclosed seas, the Red Sea and Gulf of Aden region is relatively pristine from an ecological perspective. However, critical issues pose threats to the region's ecology. These include: maritime pollution caused by international shipping; unregulated exploitation of shared fish stocks; wide-spread habitat destruction caused by uncontrolled coastal zone development for cities and tourism; and the emerging challenges of climate change.

From 1995-1998, with \$19 million from the GEF and additional co-financing of \$17.61 million, UNDP-GEF, in cooperation with the World Bank and UNEP, assisted the countries of the Red Sea and Gulf of Aden in developing a Strategic Action Programme to address these environmental threats to the shared resources of the Red Sea and Gulf of Aden. Since then, the institutions and networks created by the project have achieved considerable success. Based in Jeddah, the Regional Organization for the Conservation of the Environment of the Red Sea and Gulf of Aden (PERSGA) has brought together ministries, scientists and civil society leaders from Djibouti, Egypt, Jordan, Saudi Arabia, Sudan, and Yemen.

The project has been successful in establishing a network of marine protected areas, drafting a new regional protocol on biodiversity and protected areas, undertaking new hydrographic surveys to reduce the environmental risks from shipping, developing a strong partnership with the International Maritime Organization that has resulted in a series of training workshops on oil spill contingency planning, and establishing new data collection centres to lead efforts at reducing the pressure on over-exploited shark stocks.

Throughout the region a core of newly trained scientists have carried out baseline environmental surveys on the main habitats and species – mangroves, coral reefs, turtles and seabirds – and species-specific action plans have been developed. Finally, the project helped develop a series of 'model' integrated coastal zone management experiences for use at different scales, including a city-level version for Aden and a national coastal-scale version for Djibouti and Sudan.

## Energy for Sustainable Development in the Arab Region

Based on concepts directed toward the sustainable use of energy resources, the project addresses increased energy efficiency and renewable energy supply. It also promotes multi-sectoral themes with respect to management and administrative performance, technology transfer and institution-building. Successful technology transfer involves both individual training and upgrading of the corporate and institutional infrastructure to allow the training to be applied.

This project, funded by UNDP and executed by the United Nations Department of Economic and Social Affairs (UNDESA), benefited 12 countries in the Arab Region. Its main objectives were: to identify and facilitate technically viable and cost-effective measures for increased energy conservation and efficiency, and assist in establishing and promote private sector Energy Service Companies; to strengthen the capacity of electric utilities in the participating countries to develop their integrated resource planning processes (IRP); and to promote the use of renewable energy for rural development and poverty alleviation.

The project has been successful in conducting 20 energy audits; training a total of 559 Arab energy engineers; completing 3 Integrated Resource Planning/Demand Side Management studies; preparing 18 technical reports on energy efficiency in the region; and 15 reports/studies in addition to 2 training manuals for the renewable energy component.

Among the noted achievements in the area of renewable energy, were the efforts of Morocco and the UNDP country office. As a spin-off to the regional project, an income generating project is helping to train and equip young technicians run 'Energy Houses' in villages in need of electrical power. The villagers pay for the cost of energy, delivered through solar panels for example, and serviced by the technicians, but the cost does not exceed what the villagers used to pay to buy candles and kerosene or wood.

# ENERGY

## Preserving seeds of the past for needs of the future<sup>3</sup>

The Middle East, the cradle of agriculture and a major centre of crop plant biodiversity, has been faced with the erosion of its crop plants genetic diversity due to the degradation of their natural habitats, and intensification and expansion of cultivation and overgrazing in natural rangelands. Now Jordan, Lebanon, the occupied Palestinian territory and Syria are all involved in an \$8.1 million agro-biodiversity project, set up with support from the GEF through UNDP, to turn things around.

The project aims to protect land races (strains of seeds that have over the years been adapted to local conditions) and wild relatives of cereals, food and feed legumes, and fruit trees originating in this region. The project, coordinated by the International Centre for Agriculture in Dryland Areas, has involved farmers, herders and local NGOs in the selection of project sites and communities and in demonstrating technologies (such as water harvesting and pest management) to improve productivity.

The universities and international NGOs involved have built capacity through training sessions and by sharing their experiences. They have provided technical support, shared costs of trials and demonstrations, and tested and disseminated new approaches and techniques. The private sector and some NGOs have brought local concerns to the attention of policy-makers and the general population.

The project has helped initiate a process that has stimulated awareness and action among local communities and has influenced national policy and legislative reforms to conserve and sustain the agro-biodiversity of the drylands. The project has also contributed to the creation of local farmers' cooperatives in Lebanon, and in Hebron and Jenin in the occupied Palestinian territory. Farmers are now among the most energetic and committed advocates of maintaining agricultural biodiversity.

# LAND

<sup>3</sup>2005, CEDARE, AWP and UNDP: Status of Integrated Water Resources Management (IWRM) Plans in the Arab Region; "Protecting International Waters Sustaining Livelihoods – "Preserving the integrity of the Red Sea and Gulf of Aden" p. 6 [http://www.undp.org/gef/undp-gef\\_publications/publications/intlwaters\\_brochure2004.pdf](http://www.undp.org/gef/undp-gef_publications/publications/intlwaters_brochure2004.pdf); "Partners for Change: Experiences from UNDP's Work with Civil Society Organizations through the Global Environment Facility – Case study 2.3 – "Preserving Seeds of the Past for the Needs of the Future" [http://www.undp.org/gef/undp-gef\\_publications/publications/civilsociety\\_english.pdf](http://www.undp.org/gef/undp-gef_publications/publications/civilsociety_english.pdf)



## ALGERIA



## SPOTLIGHT

Improving Education for Environmental Protection<sup>1</sup>

Algeria's environment and ecosystems have been impacted by increasing demographic pressures and poorly-planned industrial zones. The combined effects of the growing scarcity of natural resources, water reserves, and the impacts of climate change make environmental protection a critical priority for future sustainable development planning in Algeria. Educating the population is the first crucial step in creating awareness of the imminent threats to the environment and their implications for human well-being.

To enable this process, UNDP supported a project to strengthen national capacities in the field of environment, and environmental education, targeting several sectors, such as the Ministry of National Education, the Ministry of Vocational Training and the General Direction of Civil Defence. With US\$ 2 million from UNDP regular resources, the project ran from 1995 to 2004 and aimed at strengthening national capacities for improved environmental management. The project achieved several objectives, such as the strengthening of the General Direction of Civil Defence in the field of industrial risks and disaster management, and the introduction of environmental education into the national education system and the national vocational training system, including the audit of industrial factories.

As a result of this project, the Ministry of National Education developed new methods and academic materials on integrating environmental protection issues into national programmes. The materials were developed and tested initially as a pilot phase using the project's resources and covering nearly 300 schools, and by the end of the 2004 academic year the initiative had been broadened to include all Algeria's schools. Similarly, the Ministry of Vocational Training successfully developed three new courses of study, together with a certificate of technical expertise. The experience was such a success that several other vocational schools requested to participate in the initiative.



## STRATEGIES

## QUICK FACTS

## CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$5,420,720
<b>Total UNDP and Co-Finance:</b>	\$3,667,567
<b>Total:</b>	\$9,088,287



“The Environment portfolio offers a good opportunity for poverty alleviation mainstreaming. The programme under this section is always used to develop demonstrative projects integrating sustainable income generating activities as well as introducing the principles of local governance and decentralization.”<sup>2</sup>



## PORTFOLIO

**Marc Destanne De Bernis, Resident Representative**

### FSSD\*

UNDP focuses on strengthening Algeria's national capacities for better environmental management, curbing GHG emissions, conservation and sustainable use of biodiversity, and land planning schemes. Successful activities have resulted in the development of Strategy and National Action Plans on Climate Change and Biodiversity Conservation. Significant contributions to these projects come from UNDP, GEF, the Government of Algeria, and the Government of Switzerland.

### WATER

UNDP, with the help of the Swiss government, is supporting Algeria's government strategy for sustainable environmental management through the Water/Waste Management project, whose primary objective is to build the national capacity of the personnel of municipal waste management systems.

### BIODIVERSITY

UNDP works to ensure biodiversity conservation in Algeria, especially through the Biodiversity in the Arid Zones project, which aims to support the reinforcement of Algerian capacities to adopt local governance as a tool for protected areas management. Results include the strengthening of NGO and civil society capacities and the formulation of management plans for three protected areas. Also, there have been efforts to conserve the globally significant biodiversity of two national parks - the Tassili N'Adjer and the Ahaggar. The management plans developed emphasise the promotion of income-generating activities for the local population.



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### PARTNERS

**Some of our Partners working with UNDP and the Government in Algeria**

Government of Switzerland

<sup>1</sup>UNDP Algeria Questionnaire 2005; UNDP Algeria website, project information: <http://www.dz.undp.org/energie/energie%20et%20environnement.html>;  
<sup>2</sup><http://www.dz.undp.org/energie/energie%20et%20environnement.html>; \*Frameworks and Strategies for Sustainable Development

## BAHRAIN



## Progress Towards Environmental Sustainability

MDGs

Bahrain suffers from a scarcity of water resources. Unchecked high population growth, and ad hoc urbanization and industrialization, undoubtedly contribute to the depletion of natural resources and diminish biodiversity. The energy sector produces the highest level of CO<sub>2</sub> emissions of 75 % followed by waste and effluents. The two major producers are power stations and the aluminum industry. At present, more than 90 % of Bahraini families own at least one car and about half own at least two cars.

Bahrain has approximately 126 km of coastline and 8,000 km<sup>2</sup> of marine area, an area where more than 90 % of the population lives close to it, which is posing a great threat to these natural resources. For instance, it is reported that about 82% of coral reefs in marine areas are endangered due to bleaching and pollution. Implementing sustainable development plans that concentrate on adopting policy measures to integrate coastal zone management and conservation of marine resources represent a national challenge.

A central committee for preparing a national plan to execute Agenda 21 has been formed from representatives of all Ministries, NGOs, and academia. In addition, the Kingdom's interaction with the international community and signing of many international conventions has allowed for an opportunity to revise legislations and development plans to incorporate environmental considerations. Furthermore, the implementation of a "National Environmental Strategy", currently underway, is supported by UNDP and should result in capacity development that would effectively integrate the diverse policies of economic, environmental, and societal development, thereby increasing the prospects of contributing to environmental sustainability, as outlined under MDG 7.<sup>1</sup>

## QUICK FACTS

## CURRENT PORTFOLIO BUDGET

<b>Total UNDP and Co-Finance:</b>	\$2,415,000
<b>Total MPU and Bilateral:</b>	\$422,313
<b>Total:</b>	\$2,837,313

**Cumulative Total ODS Phased-Out:** 37.5 ODP tonnes

## SPOTLIGHT

Nationally-led Environmental Strategy Development<sup>2</sup>

The discovery of oil in 1932 has led to a period of unrivalled industrial and economic development. In addition to economic growth, the population has quadrupled in 70 years resulting in increased demands on available resources, such as fresh water. The industrialisation of the country has resulted in air and water pollution, over-fishing, and land claim, putting stress on the environment and posing a burden on natural resources. A number of fragmented environmental laws were issued in Bahrain in the 1970s and 1980s, providing only various degrees of success.

Recognising that development must go hand in hand with proper environmental management and that a long-term strategy is necessary to ensure coherence, the Government worked to develop a National Environmental Strategy (NES) for Bahrain that will serve as the basis for the development of a National Environmental Action Plan (NEAP). This framework will then be used as a key instrument for promoting sustainable development in the country. Environmental Affairs of Bahrain led the project with government funding of US\$ 530,000 and technical assistance from UNDP. NGOs, the private sector and academia also contributed knowledge on sustainable development concepts into the NES.

The preparation of the NES stands out for its nationally-driven process and cross-sectoral approach; this was the first ever exercise where environmental issues in each sector were thoroughly analysed. Nine sectoral working groups (SWG) were formed and composed of national links to each of the sectors. An electronic network was created with the participation of all SWGs for exchanging data and reports. Only one international consultant was involved in the whole preparation of the NES. The development of a National Strategy helped consolidate the many fragments from previous decrees and codified one environmental strategy to support Bahrain's progress towards sustainable development.



Bahrain has no abject poverty, although, a significant portion of Bahrainis are on state provided subsidies. Due to the population's high growth rate, the depletion of natural resources quickens. There is a real need for an effective land and waste management strategy to be produced, enabling agricultural land to survive the rapid urbanization and salinity. UNDP, together with the Government, FAO and UNEP will implement actions that will facilitate an environmental trend in promoting and securing the environment's preservation and resources. These interventions include: formulating a implementing a National Environmental Strategy and an Action Plan; exploring and promoting, together with the Government, NGOs, and UNEP, an effective waste management solution; advocating an effective strategy for the protection and preservation of Agriculture, marine life and fishery; and establishing a database for monitoring the environment regularly systems.

**Khaled Alloush, Resident Representative**

## PORTFOLIO

### FSSD\*

Several projects are underway that are strengthening capacity and building expertise in environmental management. One project aims to develop Bahrain's National Environmental Strategy and Action Plan while another is developing Environmental Health Impact Assessment (EHIA) guidelines. Lastly, a third project is trying to establish a multi-disciplinary Sustainable Development academic programme focusing on linkages between social, environmental and economic issues. All projects are funded by the Bahraini government.

### CHEMICALS

With MLF funding, technology transfer is available to companies through replacement and retrofitting of equipment and units, testing, trials, technical assistance and training in the commercial refrigeration sector.



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## DJIBOUTI



## MDGs

## Progress Towards Environmental Sustainability

The high incidence of poverty in Djibouti, water scarcity and desertification – all of which are aggravated by both human practices and natural environmental degradation – point towards serious urban and rural environmental problems. Rapid population growth has led to an increase in urbanization that occupies more and more land. Inadequate sanitation services have left the problem of pollution unresolved and contribute to poor hygiene conditions, which in turn affect the health of inhabitants.

While the lack of access to water is one of the principal difficulties facing Djibouti, there is a general lack of access to basic services. Electricity, produced in highly polluted thermal centers, is poorly distributed due to ruptures in production caused by the absence of modern equipment. The use of wood for cooking is prevalent notably in rural areas and is a primary cause of deforestation and desertification. Rural living is made more difficult because of the scarcity of water points and unavailability of water – almost 50% of inhabitants do not have access to a sustainable water point. In rural areas, 30% of households rely on traditional wells that are in poor hygienic conditions.

For MDG global Target 11 – significantly reducing the number of slum dwellers by 2020 – Djibouti aims to reduce costs of construction of secure tenure and to increase the proportion of the population that owns property. Only 50% of households are inhabited by their owners.

## QUICK FACTS

## CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$1,399,700
<b>Total MPU and Bilateral:</b>	\$176,463
<b>Total:</b>	\$1,576,163

**Cumulative Total ODS Phased-Out:** 5.7 ODP tonnes

Resource mobilization and the prioritization of environmental sustainability at the political level are essential in order for progress to be made in achieving the MDG 7 targets in Djibouti. Improvement in sanitation, better distribution of water and the proper use of natural resources for productive ends are some of the priorities that need to be undertaken by the public and in cooperation with external donors and partners in development.<sup>1</sup>

## SPOTLIGHT

NCSA Fosters National Dialogue on Environmental Conservation<sup>2</sup>

Djibouti is situated on one of the most frequented sea routes in the world – the Red Sea and Gulf of Aden – an uncontested strategic position. At the same time, climatic and physical constraints and additional human pressures hamper the sustainability of productive areas, threatening those who most depend on them for their livelihoods. Currently 66% of the population resides in the capital city, increasing the need for sound capacity to deal with environmental stresses.

Aware of the long-term advantages of sustainable natural resource management, the Government of Djibouti has made environmental and biodiversity conservation a national priority. As early as 1991, within the framework of the 1992 Rio Earth Summit preparation process, the Government produced a national report on the state of the environment, and in 1997 began discussions on a National Environmental Action Plan (NEAP) and the improvement of national capacities in environmental management. In 2004, with the assistance of GEF funding of US\$ 225,000, a National Capacity Needs Self-Assessment for Global Environmental Management (NCSA) was developed with UNDP. The strategy includes priority actions related to environmental education, capacity building, combating desertification, environmental impact assessment, waste management, pollution control, biodiversity conservation, and other environmental initiatives, such as the use of environmentally-oriented technologies and the development of private sector initiatives.

In April 2005, UNDP supported Djibouti's National Dialogue, hosted by the Ministère de l'Habitat, de l'Urbanisme et de l'Environnement. Over 60 stakeholders participated, representing national and local government, civil society, the private sector, the donor community and the media. The main focus of their dialogue was to continue to raise awareness on actions linking global environmental commitments to Djibouti's national priorities, as outlined through their climate change and energy, biodiversity and land degradation strategies.

One of the most important achievements in Djibouti is the integration of the small Environment Unit at the Prime Ministry with the Ministry of Planning. This is a genuine commitment from the Government and the result of UNDP's continuous advocacy. The challenge for UNDP is to work with the Government to provide the required policy advice and institutional strengthening required to support an integrated approach to tackling environmental issues at the national and local levels.<sup>3</sup>



**Sunil Saigal, Resident Representative**

## PORTFOLIO

### FSSD\*

UNDP is implementing a National Capacity Self Assessment project that aims to undertake in-depth and participatory self-assessment and analysis of Djibouti's needs in terms of national capacity building and of the priorities and constraints to achieve global environmental objectives declared in the Rio convention and in other international agreements.

### LAND

GEF is funding sustainable land management activities which focus on mobilizing stakeholders to achieve the sustainable land management goals of the country.

### CHEMICALS

With MLF funding, UNDP is supporting Djibouti to meet its obligations under the Montreal Protocol with assistance targeted at the refrigeration sector, particularly focused on the establishment of a recovery and recycling scheme as part of the refrigeration management plan. The initiative is accompanied by a monitoring system that ensures quality of implementation through strengthened cooperation between the Ministries of Industry and Finance, the Chamber of Industry and Commerce, the Customs Directory and the training centers. Djibouti also participates in a regional methyl bromide phase-out project being implemented by UNDP for low volume consumers in Africa. This project provides policy strengthening assistance that aims to prevent the future introduction of MB use in the country.



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<sup>3</sup>Djibouti MDGR 2004 and [http://www.undg.org/documents/4507-Djibouti\\_MDG\\_Report\\_-\\_French.doc](http://www.undg.org/documents/4507-Djibouti_MDG_Report_-_French.doc); <sup>2</sup>GEF Online database: <http://www.gefonline.org/projectDetails.cfm?projID=1947>; and <http://www.un.org/dj/UNDP/odm.html>; \*Frameworks and Strategies for Sustainable Development; \*Frameworks and Strategies for Sustainable Development

## EGYPT



## Progress Towards Environmental Sustainability

MDGs

The most significant impacts on health and quality of life in Egypt are caused by urban air pollution, especially in Cairo, followed by diarrheal diseases leading to mortality. The latter primarily affects children, and is caused by lack of access to safe drinking water and sanitation, inadequate domestic personnel, and bad food hygiene. Egypt also suffers from poor management of solid waste in some governorates.

The environmental situation has been worsened by the rapid population growth, heavily straining Egypt's natural resources. Egypt relies on the Nile for 97% of its water resources in addition to 1.4 billion cubic meters of rainwater. There has been a rapid decline in the per capita share of water in light of Egypt's fixed Nile water quota, which is currently 55.5 billion cubic meters annually. Average annual per capita share, which was almost 1000 cubic meters in the early 90s, will decrease to 600 cubic meters in 2020, and drop to 400 cubic meters by 2030 if the current birth rate continues.

At present, there are 23 protectorates covering about 9% of the country's total territory, and Egypt has set a country-specific goal of increasing the number of protected areas to 40 by 2017.

Egypt has almost already achieved Target 9 of MDG 7, as the 2015 projection shows that most Egyptian governorates will reach full, or 100%, access to improved water sources, with the exception of a few governorates.

## QUICK FACTS

## CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$19,090,580
<b>Total UNDP and Co-Finance:</b>	\$8,122,000
<b>Total MPU and Bilateral:</b>	\$2,077,000
<b>Total:</b>	\$29,289,580

**Cumulative Total ODS Phased-Out:** 2,423.7 ODP tonnes

Statistics show that Egypt contains 909 slum dwelling areas inhabited by more than 5.5 million people. Several social problems seriously impact the lives of the most vulnerable groups, especially women. Moreover, the unavailability of transportation makes access to health services restricted. In order to address this problem adequately, reliable data is still needed.

The support of the international community is needed for: capacity building, environmental planning, bridging geographical disparities, increasing environmental awareness, developing alternative energy sources, water management and curbing population growth.<sup>1</sup>

## SPOTLIGHT

Engineered Wetlands Provide Reliable, Clean Freshwater<sup>2</sup>

One of Egypt's most pressing environmental problems is the lack of clean, reliable freshwater. Much of the heavily polluted water flowing through the Nile Delta from farms, cities and industrial centres enters large coastal lakes such as Lake Manzala before pouring into the Mediterranean Sea. The wastewater has traditionally been left untreated, degrading the lake and its once prolific fisheries, and sending pollution downstream into the Mediterranean.

A US\$ 5.26 million GEF-supported project through UNDP has helped the Government of Egypt with a pioneering effort to clean and re-use this wastewater for productive purposes. Using a series of engineered wetlands, every day 25,000 cubic metres of water are pumped from the Bahr El Baqr canal – which leads into Lake Manzala – into a series of large ponds, where most of the toxic sediments in the water settle. The water then flows off into the specially designed wetlands, where it is filtered by plants and bacteria which gradually remove additional pollutants. The entire process is chemical-free and can be undertaken for just one-tenth of the cost of competing technologies. The project aims to involve the local community in the maintenance of the facility.

Treatment of wastewater via engineered wetlands is a new, low-cost technology for the Middle East and these wetlands are the first of their kind in Egypt. The project's success has led national authorities to explore the re-use of treated water via engineered wetlands in irrigation, fish farming and decentralized wastewater treatment technology in remote areas. The project is negotiating with a fish research institute to explore the suitability of using treated water in breeding some fish species that have vanished from the lake under pollution stress. The Government plans to convert the facility into a centre of excellence for low-cost techniques for wastewater treatment when GEF funding concludes in 2005.

The Environment portfolio in Egypt's UNDP office covers a wide range of projects that include conservation of biodiversity, promoting the sustainable use of natural resources, and protecting indigenous knowledge thus linking biodiversity conservation to fighting poverty and improvement of livelihoods. UNDP Egypt is also tackling climate change issues through a number of projects focusing on developing innovative mechanism for improving energy efficiency and establishing marketing support for cleaner and renewable energy technologies. In addition, the CO is engaged in pollution abatement through the introduction of low cost technologies for wastewater treatment such as engineered wetlands.

**Antonio Vigilante, Resident Representative**

## PORTFOLIO

### WATER

UNDP works on water resource management in Egypt in several ways. For example, it aims to design, test, and implement a geographic information system for use as a decision support system. It also supports studies that evaluate the availability of alternative water resources. A low-cost method is piloted for cleaning polluted waters and a regional initiative is focused on the protection of wetlands of Egypt and six Mediterranean countries. The development of a framework for the management of the Nubian shared aquifer systems has been instrumental. Water management efforts have been funded by the Government of Egypt and GEF.

### ENERGY

Egypt is addressing climate change issues by promoting sustainable rural development and reducing GHG emissions by encouraging adoption of improved bioenergy technologies; introducing a viable electric, hybrid-electric, and eventually fuel cell technology programme for long term reduction of pollutants from buses; and assisting in improving energy efficiency by supporting a regulatory regime to enforce national energy efficiency standards and by policies which encourage use of energy efficiency equipment. Energy activities are funded by the Government of Egypt, UNDP, and GEF.

### LAND

UNDP, with the Egyptian government's funding, supported vertical crop production and the use of modern protected cultivation techniques in Egypt, which led to a substantial increase in vegetable production as well as to an improvement in fruit and vegetable nursery outputs.

### BIODIVERSITY

Egypt, with the assistance of UNDP, GEF, the Italian Fund, Debt swap, and the Government, is ensuring the conservation and sustainable use of its natural resources as well as the protection of its biodiversity assets. This is done through activities that include a focus on sustainable agriculture, improved solid waste management, conservation of endangered wildlife habitat, and strengthening institutional capacity of the Nature Conservation sector.

### CHEMICALS

The successful cooperation between Egypt and UNDP under the Montreal Protocol programme started in 1992 and resulted in the implementation of thirty eight projects that have covered the refrigeration, foams, methyl bromide, and halon sectors. Currently, the cooperation programme focuses in the foams and halon sectors where direct contribution is provided to the establishment of a halon management bank programme and the phase-out of the remaining ODS consumption in the foam sector.

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### PARTNERS

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Italian Cooperation  
SFD  
DS/Italy





### SPOTLIGHT

#### Emergency Assistance for the Electricity Sector<sup>1</sup>

The rehabilitation of the electricity network of Iraq is vital for most public services, and the irregularity of supply is causing great difficulties in key sectors such as health, education, and water-sanitation.

After the war in 2003, UNDP enlarged the Electricity Network Rehabilitation Programme (ENRP), which had received some \$850 million since 1997 under the Oil-for-Food Programme. The programme started responding to additional needs across the country. With the support of donors and through a wealth of available technical expertise, UNDP has been active in providing emergency generators to essential public services such as hospitals and water stations, in assisting in the repair of critical power infrastructure, as well as providing technical and managerial support to hard-pressed electricity authorities and workers. Key successes so far include the repair of 18 key transmission lines, purchase and installation of 143 diesel generators and repairing and rebuilding of the electrical distribution networks in nine major hospitals.

A recent example of the programme's success is the April 2004 rehabilitation of the Neurosciences Hospital. In cooperation with DFID, UNDP engaged in rehabilitation of the electrical works and the air conditioning ducts of the hospital, which were damaged due to fire and looting. Today the hospital operates without interruptions from electrical problems.

Since the end of the conflict in Iraq, UNDP has worked with donors and the Ministry of Electricity in supplying emergency support to the badly-damaged energy sector in order to provide reliable electrical power to essential humanitarian services. Further funds secured by UNDP will enable it to provide technical assistance to local and central Ministry authorities, re-equip those authorities with important safety and test equipment, and provide electricity maintenance teams with specialised tools and construction.

# BIODIVERSITY



By targeting the most urgent and major infrastructure needs, UNDP continues to implement and develop programmes and projects in the sectors of infrastructure and environment. UNDP understands the very serious environmental issues that confront Iraq, including but not limited to air pollution, desertification, raw sewage in water-ways, hundreds of shipwrecks left over from continuing conflict, destruction of the marshes, and threats to biodiversity. UNDP Iraq is preparing a complete environment survey of the country together with other UN agencies as a preliminary for interventions.<sup>2</sup>

**Boualem Aktouf, Country Director**

## INFRASTRUCTURE AND THE ENVIRONMENT

**UNDP strategy is to contribute to the country's reconstruction, focusing on rehabilitating and modernizing the infrastructure, whilst also building national capacities to up-to-date standards.**

Two decades of war and sanctions have left Iraq's infrastructure in a dilapidated and dysfunctional state. The effects of the recent war have severely aggravated the problem as subsequent looting resulted in the loss of most assets that belonged to the institutions managing various aspects of infrastructure. UNDP continues to implement and develop programmes and projects in the sectors of infrastructure and environment, targeting the most urgent and major infrastructure needs in the areas of electricity, water sanitation and port access. Simultaneously, UNDP is helping build the capacities of the new Iraqi authorities dealing with these issues by exposing them to international expertise, new technologies and new systems, institution strengthening and restructuring, and assisting in the development of master plans for their sections.

In addition, UNDP understands the very serious environmental issues that confront Iraq, including but not limited to air pollution, desertification, raw sewage in water-ways, hundreds of shipwrecks left over from continuing conflict, destruction of the marshes, and threats to biodiversity. UNDP Iraq is preparing a complete environment survey of the country together with other UN agencies as a preliminary for interventions. Environment projects already in development include the identification of the different pollutants in the Shatt Al-Arab, containing them and eventually disposing of the source.

Specific areas of UNDP intervention are: electricity; dredging and wreck-removal; water and sanitation and health.

### Electricity

UNDP's largest undertaking in the country, the Electricity Network Rehabilitation Programme (ENRP) received some \$850 million since 1997 under the Oil-for-Food Programme. Through ENRP, UNDP rebuilt and maintained power service in the governorates of Erbil, Dahuk, and Sulaymaniyah, serving 3.6 million people, making that region the only part of the country that had reliable power service throughout the war and up to the present. After the war in 2003, UNDP enlarged the programme to respond to additional needs across the country. Specific initiatives include: emergency assistance for the electricity sector; rehabilitation of the national dispatch centre; rehabilitation of Iraqi power plants; preparatory work for capacity building and distribution planning

### Dredging and Wreck-removal

An estimated 280 shipwrecks—many from the first Gulf War over a decade ago—continue to prevent the Port of Az Zubayr effective use. Many of the shipwrecks contain oil, toxic chemicals and unexploded ordnance, posing a severe potential environmental hazard and complicating the wreck removal task. The World Bank/UNDG Needs Assessment of October 2003 identified the continuation of dredging activities in and around Umm Qasr port as a first priority need of the ports and inland waterways sector. UNDP has been managing both dredging and wreck removal work budgeted at \$50.1 million and is anticipating additional funding. UNDP had succeeded in reducing major navigational hazards in the port approach and clearing eight of the port's berths for use by ships of 50,000 tons or more.

### Water and Sanitation

UNDP's strategic objective is to assist several major cities, according to the priorities set by the key partners such as the Ministry of Public Works and Municipalities, in contributing to the development of master plans for potable and wastewater management and solid waste disposal, as well as in rehabilitation and construction of key facilities. These projects will also include promotion and implementation of standards, IT management and capacity building aimed at resolving policy issues, achieving sustainability through collection of revenues and advancing environment preservation. In the cities considered, water production, storage capacity and the distribution network have to be thoroughly inspected.

### Rehabilitation of Health Facilities

UNDP has been working in the rehabilitation of Public Health facilities in Iraq since 1998, and has fully renovated thirty buildings to date. The rehabilitation of the Al-Kadhimiya Teaching Hospital in Baghdad is underway, and will include improvement of the hospital's physical condition and equipment. It is also aimed at helping improve public health and environmental conditions in the surrounding Al-Kadhimiya District while creating local employment opportunities. A second project being undertaken in the same area is to completely renovate two large Public Health Care Centres, which suffered neglect due to both lack of investment and substantial looting at the end of hostilities in 2003.

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#### PARTNERS

**Some of our Partners working with UNDP and the Government in Iraq**

UNICEF  
DFID  
WB  
Japan

## JORDAN



## MDGs

## Progress Towards Environmental Sustainability

Environmental issues have become a priority for Jordan, especially since the establishment of environmental NGOs and of the Royal Society for the Conservation of Nature in 1966. Moreover, an independent Ministry of Environment was established in 2003 to tackle Jordan's environmental challenges. Jordan has also drafted and issued a number of laws and regulations in various environmental fields and is party to the second bilateral free trade agreement with the U.S., which includes articles dealing with environmental issues.

Environmental indicators show that the percentage of wooded areas in Jordan has increased from 0.44% in 1990 to 0.84% in 2002 and that protected areas for biodiversity cover 0.44% of Jordan's total land surface area. The proportion of the population with access to safe drinking water through a public network reached 97% in 2002, while the proportion of households connected to sewage networks reached 60.1% for that same year.

Jordan's consumption of ozone depleting substances has dropped from 835 tons in 1990 to about 251 tons in 2001. Some studies carried out on air quality in certain areas show that overall lead concentration during 2002 reached an average of 0.23 micrograms per cubic meter of air compared to the 0.50 level permitted by international standards.

Despite such progress, the complexity of Jordan's environmental problems calls for a stronger commitment especially regarding the institutional legislative framework, the amount of resources allocated to ensure environmental protection, the coordination between policies and strategies and the availability of a comprehensive environmental database. Water will continue to be a major challenge given the very limited water resources in Jordan. Also of concern is that a significant area of land, approximately 60 million squared meters, is known or is suspected to be mined. In a country starved of arable land and water, the development challenges posed by the presence of these landmines are significant.<sup>1</sup>

## QUICK FACTS

## CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$9,268,170
<b>Total UNDP and Co-Finance:</b>	\$130,000
<b>Total:</b>	\$9,398,170

## SPOTLIGHT

Turning Waste into Energy in Amman<sup>2</sup>

The Ruseifah landfill dumping site was originally an old phosphate mine located between the major two big cities of Amman and Zarka. Deposition of waste in unsanitary landfill causing severe environmental problems such as emissions of greenhouse gases (GHG), toxic residuals, contamination of ground water, pollution of the waterways, odor as well as possible fires and explosions due to the release of methane gas.

Responding to these serious environmental, economic and social threats, UNDP, with funding from the Government of Jordan and Denmark and UNDP-GEF, with a total in cash budget of US\$ 5.5 million, has facilitated the construction of a pilot biogas plant, the first of its kind in the Middle East, that uses innovative ways for turning waste into energy reducing the uncontrolled release of greenhouse gases to the atmosphere

The plant has been running in smooth operation since its commissioning in 2000. The project rated capacity is 1 MW composed of two integrated technical parts: the bioreactor plant with the capacity to treat 60 tons of organic waste per day and the extraction of landfill gas generated from buried waste. The operation of the two parts has led to a reduction of 1540 tons of methane and 40,000 tons of CO<sub>2</sub> and substituting the use of 1900 tons of diesel fuel per year. The annual gross profit from the sales of electricity and bio-fertilizer has reached US\$ 400,000 where US\$ 100,000 have been allocated to cover an integrated training program for project replication at different levels: university education and public and private sector training on subjects related to methane release and utilization.

In addition to reducing GHG emissions and providing an alternative renewable source of energy, the project has enhanced public-private-partnerships in the energy sector, prepared a national master plan for the utilization of biogas and encouraged integrated solid waste management. The Biogas Company and UNDP will be signing in 2005 an agreement for the expansion of the plant to produce five times its initial design with funding coming from the private sector.

UNDP works towards achieving environmental sustainability in Jordan, through supporting projects that aim to preserve Jordan's biodiversity; encourage the implementation of renewable energy and energy efficiency principles; improve environmental management and build local capacity to tackle priority issues; and establish nature reserves. UNDP's environmental projects also work indirectly through mobilizing women and reducing poverty, and therefore contributing to the achievement of the MDGs for Jordan. At the same time UNDP also incorporates elements of environmental sustainability in its projects, which aim to reduce poverty and promote the use of information and communication technologies.



**Christine McNab, Resident Representative**

## PORTFOLIO

### FSSD\*

After the successful completion of Agenda 21 of Jordan in 2002 and the establishment of the Sustainable Development High Level Committee, a number of capacity building and environmental mainstreaming initiatives have been initiated in Jordan to address critical capacity limitations and constraints. UNDP is currently supporting the institutional strengthening of the newly created Ministry of Environment, assessing national capacity to meet obligations under international environmental agreements as well as building Jordan's capacity to comply with the communications obligations under the UNFCCC through technology transfer and defining baseline parameters.

### ENERGY

Jordan imports 95% of its energy needs, while renewable energy resources such as biogas and landfill gas are left untapped. UNDP in partnership with and funding from the Danish Government, UNDP-GEF and the public and private sectors in Jordan has finalized the construction and operation of the biogas plant and landfill and is currently engaged in initiating the second phase for the expansion of the project with funding from the private sector. The project is highlighted in the "Spotlight". UNDP is also seeking to assist the Government and national authorities prepare a comprehensive National Strategy for Renewable Energy.

### LAND

95% of Jordan is dry and desertification and land degradation are real threats to these areas. With a funding from its Drylands Development Center (DDC) and the Government of Jordan, UNDP has assisted the country prepare its National Strategy to Compact Desertification aiming to eradicating poverty, improving the livelihood of affected communities, and achieving sustainable development. The project has also produced a resource mobilization strategy to address priority needs in combating desertification.

### BIODIVERSITY

UNDP has assisted the Government of Jordan in the development of the National Biodiversity Strategy and Action Plan and is currently helping national institutions undertake assessment of capacity building needs and priorities. Addressing these priorities, UNDP-GEF has continued its support to the Government and environmental NGOs in establishing Jordan's system of Protected Areas. After the successful Dana wildlife and Azraq Oasis reserves projects, UNDP-GEF has launched the Dibe'en Forest project as being one of the best remaining examples of natural pine-oak forests in the region. Jordan is also part of two important regional projects funded by UNDP-GEF: the sustainable use and conservation of agrobiodiversity and the establishing of a regional conservation and monitoring program of globally significant bird species in the east Palearctic and west Arabian flyway.

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### PARTNERS

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DANIDA  
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### Progress Towards Environmental Sustainability



The MDG 7 target for the integration of sustainable development principles into country policies and programmes was achieved in Kuwait in 1995 when the Environment Public Authority (EPA) was established. EPA is responsible for the management and the protection of the environment. The legislation establishing EPA has given it a fairly high profile requiring the supreme council of the authority to be chaired by the First Deputy Prime Minister. Two of the four indicators identified for this MDG 7 target do not seem to be relevant to Kuwait. According to international classification, given the geographical location of the country as well as its size, the proportion of land area covered by forests is zero and land area protected to maintain biological diversity is negligible as a proportion of the total area of the country.

Kuwait has experienced a systematic increase in GDP per unit of energy use from 355 oil kilograms in 1993 to 569 oil kilograms in 1998, which then decreased to 523 kilograms in 1999. The proportion of population using solid fuels has been zero for quite a long time on account of the highly urbanized nature of the society as well as on account of the fact that the economy is oil-based implying the availability of non-solid fuels to the population. It is important to note that Kuwait is located in a desert region, with no forests, and hence there exists no significant implication for the use of solid fuels on the environment.

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP and Co-Finance:</b>	\$1,045,450
<b>Total:</b>	\$1,045,450

Kuwaitis enjoy a decent standard of living and consequently, the proportion of population with sustainable access to an improved water source has been 100% for a long period of time. Therefore, MDG 7 target 10 has already been achieved. Regarding the proportion of people with access to secure tenure, about 99.7% of Kuwaiti households had access to secure tenure as of December 2002. Of these, 86.9% were living in houses, 11.6% were living in modern flats and about 1.2% were living in traditional houses and annexes.<sup>1</sup>

## SPOTLIGHT

### Reinforcing Environmental Management Policies and Programmes<sup>2</sup>

Kuwait's rapid economic growth has both burdened the environment and left it lagging behind other areas of progress. Outdated environmental laws and regulations, a lack of coordination between the various institutions dealing with environmental issues, unrealistic and immeasurable targets, and an acute lack of public information on environmental issues have rendered citizens and organisations indifferent to the benefits that a sustainable environmental policy provides.

In response to these challenges, Kuwait is currently refocusing its environmental efforts to concentrate on upstream strategy and policy formulation and implementation in an effort to recover environmental sustainability. Initiated in 2003 and lasting until the end of 2005, the Kuwait Sustainable Environmental Management Programme utilizes UNDP's technical assistance and funding of nearly US\$ 630,000 from the Kuwaiti Government. The Ministry of Planning, the Kuwait Institute for Scientific Research, the Economic and Social Commission for Western Asia, and the Regional Organization for the Protection of the Marine Environment are providing additional logistical assistance. The project will strengthen the capacity of the Environmental Protection Authority for effective management of environmental quality, establish an environmental database, and develop and test mechanisms for improved environmental management. A first phase consists of launching a public awareness campaign and integrating coastal zone management strategies, while a second phase includes the development of sectoral environmental strategies covering atmosphere, fresh water zones, and environmental awareness, urbanisation, and petroleum.

The latest achievement of the project was the completion of a national environmental work plan, as well as the full collection of data for sectoral environmental strategies for each focus area with the exception of the petroleum sector. As public awareness and participation increases, citizens and organisations will become more active actors and stakeholders in the future environmental strategy of the country.

“UNDP Kuwait is currently refocusing its environmental efforts to concentrate on upstream strategy and policy formulation and implementation in an effort to recuperate environmental sustainability, especially after Kuwait’s rapid economic growth that has both burdened the environment and left it lagging behind other areas of progress.” In order to address environmental concerns, UNDP Kuwait is currently involved in the implementation of environmental programmes. These programmes will enhance Kuwait’s Environmental Protection Authority, educate the public about environmental concerns, and incorporate GIS and other data sources in an Integrated Environmental Information Network.<sup>3</sup>



**Moez Doraid, Resident Representative**

## PORTFOLIO

### FSSD\*

The preparation of a National Environmental Action Plan is an outcome of the Kuwait Sustainable Environment Management Programme, which aims to ensure sustainable human development. Also, UNDP is implementing a sound Environmental Information System that utilizes research and technical information centres in the field of acquisition, development, management, archiving, retrieving and disseminating scientific and technological information. The Government of Kuwait has funded these efforts.



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## LEBANON



MDGs

## Progress Towards Environmental Sustainability

Lebanon's Ministry of Environment was established in 1993 and its mandate is continuously reviewed to strengthen decentralization in addressing environmental sustainability issues. A framework law for the protection of the environment was promulgated in 2002 to ensure the sustainability of the environment as a basic national entitlement and a public goal. Several protection measures were enforced, such as preparing a draft law on protected areas, formulating a strategy for climate change, implementing a five-year plan for reforestation, establishing the Lebanese Environment and Development Observatory (LEDO), and mainstreaming environmental concerns in other sectors such as education.

Forests account for 13.3% of total land area in Lebanon. Carbon dioxide is one of the most commonly emitted gases, with an estimated emission of 13,803,000 tons in 1994. The transport sector is the main source of pollution, followed by the energy sector, with emissions increasing by 35% between 1994 and 1999. After the ratification of the Vienna Convention and the Montreal Protocol, a national committee and a special Ozone Office at the Ministry of Environment were established.

Access to water through public water networks covers 79% of total dwellings, with noted regional variations. The disparity is due to seepage from deteriorated networks. Government attempts to ensure sustained access to safe water continue through installation of networks in rural areas and plans for the constructing of dams to satisfy potable water requirements and other needs.

The pollution of water resources, especially as a result of wastewater infiltration to underground water resources, is a national problem. Proliferation of lime constituents and cracks in soil layers allow infiltration of liquid waste into the groundwater; haphazard digging of artesian wells leads to the infiltration of seawater into fresh groundwater, resulting in increased salinity; and the disposal of domestic and industrial solid waste and waste water are polluting factors as well.

Some important policy recommendations for increasing prospects for environmental sustainability in Lebanon include: implementing the provisions of the international conferences on sustainable development and the environment and the Arab initiative for sustainable development; strengthening public participation and public-private partnerships through increased access to information.<sup>1</sup>

## QUICK FACTS

## CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$8,982,000
<b>Total UNDP and Co-Finance:</b>	\$5,001,076
<b>Total MPU and Bilateral:</b>	\$4,368,479
<b>Total:</b>	\$18,351,555
<b>Cumulative Total ODS Phased-Out:</b>	393.7 ODP tonnes

Removing Barriers To Energy Efficient Buildings<sup>2</sup>

Although Lebanon's GHG emissions are globally very marginal, Lebanon has good reason to promote energy efficiency programs since it imports around 97% of its energy needs in the form of fossil fuels. According to Lebanon's First National Communication to the UNFCCC, Lebanon's 1994 energy use resulted in the emissions of 12 million tons of CO<sub>2</sub>, 8% of which were the result of energy used in buildings for space heating and cooling. As buildings play a key role in determining amounts of energy use, establishing standards to improve the energy-saving qualities of buildings can reduce fuel-based energy used for the provision of heating and cooling and consequently the amount of CO<sub>2</sub> emissions.

In 2002, as part of a regional programme, UNDP and GEF initiated a project in collaboration with the Government of Lebanon, focused on removing barriers for the establishment, adoption, and application of thermal standards for buildings. The removal of barriers involved the assessment of environmental and socio-economic impacts; the development of economic incentives; information dissemination and sensitization; provision of the capacity building required and knowledge sharing among countries in the region. Two key components were the creation of the Energy Efficiency Committee within the Order of Engineers and Architects and the integration of concrete financial incentives to use energy efficient building materials into the recently adopted building law.

The project has been successful in fostering an enabling policy environment, as the removal of barriers paved the way for the future transformation of the thermal building standard into a code adopted by the Government. The project is a strong foundation upon which to continue to generate national momentum to reduce CO<sub>2</sub> emissions in buildings.

## SPOTLIGHT

UNDP supports sustainable development in Lebanon, which includes the protection and regeneration of the environment and the access by all people to clean, affordable energy services. "The UNDP Energy and Environment Programme has been instrumental in advancing government's efforts at strategic environmental planning and natural resource management at the national level by working on two major fronts: developing national environmental policies, action plans, and legislation, while strengthening national capacities and partnerships; and assisting the Government to ratify and implement the relevant international treaties and conventions."<sup>3</sup>



**Mona Hammam, Resident Representative**

## PORTFOLIO

### FSSD\*

The EU and GEF are supporting efforts to strengthen the Ministry of Environment's institutional capacity, increase environmental awareness in order to identify, evaluate, and promote pressing environmental issues, and to integrate environmental, social and economic considerations into national public decision-making. Other efforts include the introduction of integrated waste management of Olive Oil Pressing Facilities in Lebanon, Syria, and Jordan.

### WATER

FFEM is funding activities to improve the capacity of governmental and non-governmental agencies to address biodiversity conservation issues in the Tyre Coast Nature Reserve and the Aamig Wetlands through the MEDWET project.

### ENERGY

The creation of a multi-purpose Lebanese Center for Energy Conservation and Planning aims to reduce GHG emissions by improving demand side energy efficiency; the center, funded by FFEM, will simultaneously undertake barrier removal activities and provide energy efficiency services to the public and private sectors. In addition, a GEF-funded project is establishing thermal standards for buildings, promoting awareness of their benefits as well as human and resource capacity in design and execution of energy efficient buildings.

### LAND

UNDP's Drylands Development Centre and GEF are supporting the strengthening of Lebanon's institutional framework for the preparation, implementation and monitoring of the NAP by raising awareness and building the capacity of key stakeholders and by preparing the National Action Programme to combat desertification.

### BIODIVERSITY

Several initiatives are underway to prepare Lebanon for entry into force of the Protocol on Biosafety, to assess Lebanon's biodiversity national capacity building needs and priorities, to identify the optimum management modality for Lebanese protected areas, to promote the conservation of important wild relatives and landraces of agricultural species indigenous to Lebanon, Syria, Jordan, and the Palestinian Authority, and to conserve endemic and endangered wildlife and their habitats by incorporating wildlife conservation as an integral part of sustainable human development. The strengthening of institutional capacities of governmental and non-governmental agencies as well as the promotion of national reconciliation are also priorities. Lebanon's biodiversity projects are funded by UNEP, GEF, MoE, and RAMSAR.

### CHEMICALS

The UNDP-Lebanon programme consists of twelve projects under the MP compliance framework and is the result of successful partnerships based on country specific needs. The integrated approach includes institutional strengthening assistance to ensure development and enforcement of policies as well as coordinated programme management. The national CFC phase out plan aims at conversion of CFC-based manufacturing enterprises as well as phase-out of CFC in the servicing sector. The sector phase-plan in the methyl bromide sector ensures introduction of viable alternatives and their sustained adoption in horticultural production. Additionally, support is provided in the aerosol sector through conversion to CFC-free technology in the manufacture of aerosols. UNDP is also assisting through facilitation services the implementation of a UNEP implemented enabling activity POPs initiative

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### PARTNERS

**Some of our Partners working with UNDP and the Government in Lebanon**

EU  
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<sup>1</sup>MDGR 2003 and [http://www.undg.org/documents/3344-Lebanon\\_MDG\\_Report\\_-\\_English.pdf](http://www.undg.org/documents/3344-Lebanon_MDG_Report_-_English.pdf); <sup>2</sup>UNDP Energy projects database: <http://www.undp.org/energy/prodocs/rbas/pal99g35.htm> and GEF Online database: <http://www.gefonline.org/projectDetails.cfm?projID=5> and Order of Engineers and Architects of Beirut: <http://www.ording.org.lb/OrderE/Partnerships.htm>; <sup>3</sup><http://www.undp.org.lb/programme/environment/index.html>; <sup>4</sup>Frameworks and Strategies for Sustainable Development



## ARAB STATES

# LIBYAN ARAB JAMAHIRIYA



## SPOTLIGHT

### Database Facilitates Improved Natural Resource Monitoring<sup>1</sup>

Agriculture has consistently been given the highest priority in Libya's development plans. Current growth in this sector is approximately 7%. Such rapid development requires coordinated economic and physical planning at national, regional and local levels. The country's natural environment, however, presents severe obstacles, including the climate, desert conditions, and limited water resources. Moreover, the unregulated exploitation of natural resources, encroaching on arable lands, forests, and coastal areas, has jeopardised the reproductive capacity of the natural environment. These ecological and socio-economic impacts demonstrate the urgent need for the establishment of appropriate policies for the sound management and use of natural resources in Libya.

However, it was first necessary to strengthen the institutional capacity of the agencies responsible for regulating the conservation and use of natural resources, make an inventory of the country's natural resource base and integrate monitoring. In 2000, in co-operation with the FAO, UNDP began to provide advisory assistance to the Government to establish a national agro-environmental database to facilitate improved monitoring and management of natural resources. US\$ 2.88 million was provided to develop the digital database, using remote-sensing techniques and Geographical Information Systems.

The aim of this joint project was to build national expertise in information management, land evaluation, computer science, remote sensing and resource monitoring, and to achieve the goal of creating a self-supporting natural resources monitoring capacity that will be integrated into decision-making processes. As the underlying information infrastructure could also be of benefit to inland monitoring programmes, following testing on the first priority area – the Gefara Plain on Libya's northwestern coast – this system could be applied to other management situations in the country.

# BIODIVERSITY

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$200,000
<b>Total UNDP and Co-Finance:</b>	\$11,182,109
<b>Total MPU and Bilateral:</b>	\$1,528,890
<b>Total:</b>	\$12,910,999

**Cumulative Total ODS Phased-Out:** 314.0 ODP tonnes



A capacity assessment, conducted by UNDP, funded by the GEF has identified options for environment-related capacity building, strategies and action plans for Libya. "There are many practical and cost effective measures we can implement. These measures can reduce the strain over our scarce water resources. Sound water management, besides, is the key to sustainable human development and to poverty eradication. The UN has been promoting water-related strategies aimed at bringing together countries worldwide to meet the MDGs, especially in the aspects related to water and sanitation."

**Julio Grieco, Resident Representative**

## PORTFOLIO

### FSSD\*

Cooperation between UNDP, the Libyan Meteorological Department (LMD), the World Meteorological Organization (WMO), and the French national meteorological organization, Météo-France International, has resulted in the upgrading of meteorology services in Libya. This innovative partnership arrangement, funded by the Libyan government, began in 2000 and covers the capacity building in the LMD, the upgrading of technical capabilities in the department as well as the procurement and installation of new equipment.

### LAND

UNDP is working to use technology to promote best agriculture practices to dampen effects on scarce water supplies. FAO and UNDP are providing assistance with an agro-environmental database to facilitate better natural resources monitoring and management. Technical assistance is also being provided to the Secretariat of Agriculture for emergency response measures.

### BIODIVERSITY

UNDP is meeting Libya's needs to comply with Montreal Protocol targets through development and implementation of a portfolio of nine projects in the foams sector. The programme provides assistance through technology transfer, technical assistance, training and trials, as well as supplying equipment to the manufacturing sub-sector.



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## MOROCCO



## Progress Towards Environmental Sustainability

MDGs

Morocco has developed environmental policies founded on the concept of sustainable development as a key factor for economic and social wellbeing in the country. It strongly encourages the involvement and collective efforts of the international community in order to face environmental challenges at the global and national level. Population growth has no doubt had an impact on the use of natural resources and has exacerbated environmental degradation in several ways.

It is estimated that the cost of environmental degradation in Morocco amounts to 20 billion Dirhams, which is equivalent to 8% of the country's GDP. The increased availability of renewable sources of energy, however, has certainly provided a promising prospect for improved livelihoods, especially in the rural communities. Environmental degradation has also led to the pollution of coastal zones, mainly due to excessive and sporadic urbanization and poor management of industrial and household waste.

Improving the quality of air in order to reduce atmospheric pollution constitutes one of the main challenges facing Morocco. Air pollution is relatively limited in Morocco; it has, however, started to give rise to problems mainly in urban areas and particularly in Casablanca and Rabat. Laws and regulations have been drafted in order to control emission of pollutants, especially those caused by vehicles. While the implementation of this legislation has not yet come into place, it is envisioned to help prevent further environmental degradation caused by air pollution.

## QUICK FACTS

## CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$54,645,400
<b>Total UNDP and Co-Finance:</b>	\$9,953,117
<b>Total:</b>	\$64,598,517

**Cumulative Total ODS Phased-Out:** 494.0 ODP tonnes

Improved environmental sustainability in Morocco requires international assistance, if MDG 7 is to be achieved. Donor and partner assistance and investment are vital in order to realize the goals outlined in Morocco's National Environmental Action Plan, which identifies several actions that need to be taken and provides an estimation of their costs.<sup>1</sup>

## SPOTLIGHT

Rural Energy Houses Create Sustainable Local Business and Rural Energy Services<sup>2</sup>

Many rural communities in Morocco lack access to the national grid system, which provides essential energy services for cooking, heating and education. Unemployment is another problem in rural Morocco, which is one of the reasons for the levels of poverty in these areas.

The Energy Houses project, initiated in 1997, was designed to provide energy services in rural areas that lack grid-based power. Each 'energy house' is a micro-enterprise established to provide rural populations - specifically the rural poor - with adapted local energy services, information, awareness and technical assistance. Each 'energy house' receives grant contributions from UNDP from a total contribution of US\$ 200,000 out of the total programme budget of US\$ 1.5 million. Supported by national ministries and agencies, local communities, renewable energy companies, and national banks, the programme provides young entrepreneurs with technical training and financial backing to develop the energy houses that market renewable energy products, such as photovoltaic systems, solar water heaters and improved stoves, install and maintain the equipment, charge batteries and distribute gas. The programme also builds awareness about the relationship between renewable energy and natural resource protection through demonstration activities promoting an integrated approach to sustainable development.

The initial phase of the programme led to the creation of 150 energy houses, which were fully operational by 2004. The programme has helped to create rural business and sustainable employment opportunities, as well as providing essential energy services to poor rural communities. Since its inception, two new partnership conventions have been signed with the National Agency for Social Development, and the Agency for the Development of Northern Provinces to increase the number of energy houses to 1000 units.

This project exemplifies the importance of partnerships involving national governments, local community organizations, private entrepreneurs and investors to meet rural development needs through increased energy services.

Poverty-stricken populations in Morocco are affected by environmental degradation more so than others because they are particularly sensitive to problems posed by water contamination, soil deterioration, air pollution and climate change. It is also among the poor in which clean and accessible energy is felt most strongly. UNDP is devoted to the strengthening of the national capacities and supporting strategic interventions to environmental degradation in Morocco. The various programmes undertaken in the field of energy and environment seek to achieve the initial goals set by the Country Cooperation Framework as well as measuring the intensity of integration of environmental affairs within national frameworks. The creation of favourable conditions and the reinforcement of the national capacities for implementation of the commitments entered into within the international Framework Conventions are vital to Morocco's successful, sustainable development.<sup>3</sup>



**Emmanuel Dierckx De Casterle, Resident Representative**

## PORTFOLIO

### FSSD\*

UNDP is currently implementing initiatives that centre around local and national capacity development. These efforts are driven by the needs reflected in various communities in both rural and urban cities such as Marrakech, Tesnift and Al Haouz. Local Agenda 21 as well as the NCSA process allow for a thorough assessment and analysis of the capacity needs and constraints facing Morocco's pursuit of sustainable social and economic development. GEF, UNDP and the Moroccan government are contributing to these capacity development programmes.

### ENERGY

The development and successful implementation of solar water heaters contributes to Morocco's efforts in reducing CO2 emissions. The key objective is to reduce barriers to entry through awareness-raising and cost reduction. GEF, UNDP and the Moroccan government fund these efforts. Other ongoing initiatives include integrating the Clean Development Mechanism and establishing a portfolio of projects that will utilise this method to help mitigate effects of climate change. UNEP provides support for these activities.

### LAND

The objective of the National Action Program to Combat Rural Poverty, Land Desertification and Drought is to implement a rural development strategy while integrating environmental protection. The actions envisaged within this framework make it possible to reinforce local capacities regarding rural development and establishing a participative, inter-sectoral approach to natural resource management. There is particular importance given to the adoption of financial planning as a key component to meeting specific targets within the framework. UNDP, IFAD, DDC, the Ministry of Agriculture, Ministry of Water and Forests, and the Social Development Agency are all contributing to this objective.

### BIODIVERSITY

Domestic and regional efforts serve two distinct ecosystems through effective land management legislation. Biodiversity conservation in the Southern High Atlas combines common property management regimes, land use planning and innovative incentives for range-land and wildlife protection to contribute to local and global benefits. Regional initiatives ensure the durable management of coastal and wetland biodiversity in Albania, Egypt, Lebanon, the Palestinian Territories, Morocco and Tunisia through land-use and wetland policies at a national level, site protection and management at the local level and regional networking.

### CHEMICALS

For more than nine years, UNDP's cooperation with Morocco has allowed the country to make significant progress in complying with Montreal Protocol targets through implementation of a comprehensive project package targeting the foams sector. UNDP is currently assisting with the phase-out of CFCs in the manufacture of flexible foam through technology transfer, technical assistance, trials and training. Building on this experience, initial assistance is being provided under the Stockholm Convention to Morocco through implementation of an enabling activity that will result in NIP development.

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### PARTNERS

**Some of our Partners working with UNDP and the Government in Morocco**

UNEP  
CDER  
UN Habitat  
AFD  
Government of Italy  
IFAD

<sup>1</sup>MDGR 2003 and [http://www.undg.org/documents/3545-Morocco\\_MDG\\_Report.pdf](http://www.undg.org/documents/3545-Morocco_MDG_Report.pdf); <sup>2</sup>UNDP, "UNDP and Energy for Sustainable Development", 2004; [http://www.undp.org/energy/docs/UNDP\\_energy\\_brochure.pdf](http://www.undp.org/energy/docs/UNDP_energy_brochure.pdf) and UNDP Project Document, "Rural Energy Houses Programme"; <sup>3</sup>[http://www.pnud.org.ma/Environnement\\_Energie/env.asp?m=7](http://www.pnud.org.ma/Environnement_Energie/env.asp?m=7); <sup>4</sup>Frameworks and Strategies for Sustainable Development



## OCCUPIED PALESTINIAN TERRITORIES

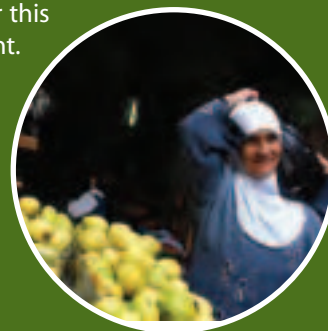
## SPOTLIGHT

**Increased Awareness Leads to Energy Efficiency and GHG Reduction<sup>1</sup>**

Despite using relatively small amounts of energy per capita, energy efficiency was low in the Occupied Palestinian Territories and had worsened throughout the 1990s, resulting in unnecessary releases of GHGs to the atmosphere. A number of barriers existed to energy efficiency, including low priority of energy end-use efficiency, limited information on improving energy efficiency, lack of consumer awareness of energy efficiency potential, shortage of financing for energy-efficient equipment purchases and a lack of standards governing quality of energy equipment.

As part of a regional initiative for energy efficiency in Egypt and the Palestinian Authority (PA), with US\$ 2.475 million GEF financing, UNDP and the Palestinian Energy Authority launched an energy efficiency improvement project in 1998 to help reduce the long-term increase of GHG emissions from electric power generation and consumption of non-renewable fuel resources. In responding to the new operating conditions, public and private industry invested in process modifications and new machinery to remain competitive. This was realized due to the expectation that investments would have favourable rates of return based on savings from reduced operating costs. The funding for this project leveraged the new investments in ways that were most beneficial to the global environment.

To date, the main achievements of the project have been the establishment of a Palestinian Energy Information Centre along with technical capacity building of the Palestinian Energy Authority and various other stakeholders including electricity distribution companies. In addition, over 180 energy audits were conducted for large commercial / industrial firms, reducing the technical distribution losses in some targeted electricity distribution networks in the West Bank and increasing the energy efficiency of the local market through the introduction of energy efficient equipment and appliances.



## CLIMATE CHANGE

## QUICK FACTS

**CURRENT PORTFOLIO BUDGET**

<b>Total UNDP and Co-Finance:</b>	\$31,936,125
<b>Total:</b>	\$31,936,125



Palestine is currently implementing several water and wastewater projects with aid from a number of donors. The number of these projects is expected to nearly triple in the near future. But despite these efforts and those of many others in Palestine, there are still long lists of needs and problems to be addressed. And in addressing these needs, even further commitments, cooperation and coordination will be required among stakeholders at all levels. The participation of all – government, civil society organizations, the academic community, politicians and scientists – will be a must.<sup>2</sup>

**Timothy Rothermel, Resident Representative**

## PORTFOLIO

<b>FSSD*</b>	UNDP is working to strengthen institutional capacity in the Occupied Palestinian Territories. The Government of Japan, the local community and the Near East Foundation are funding efforts in the West Bank within the context of the Environmental Action Plan, which aims to rehabilitate landfill sites, improve capacity building of service providers, and conduct public awareness campaigns in the area to educate people on how to sort and separate solid waste, recycling issues and techniques. The Spanish Cooperation funds food security efforts that target the improvement of livelihoods of the poor while rehabilitating rangelands and increasing availability of quality water.
<b>WATER</b>	Water initiatives in the Occupied Palestinian Territories range from providing sustainable and safe access to clean water by constructing house water cisterns, to the construction and rehabilitation of sewage networks, storm water systems and solid waste dump sites, to the celebration of World Water Day through educational workshops and the organization of the International Water Conference: Water Values and Rights. Projects are funded by the Interest Fund, UNDP, Islamic Development Bank, the Saudi Committee for Palestinian Relief, and the Governments of Japan and Germany.
<b>ENERGY</b>	GEF is implementing initiatives to contribute to a measurable reduction in energy consumption in the building sector, and to produce global benefits by reducing emissions of CO2 and other greenhouse gases into the atmosphere. Activities include the development of a set of thermal building standards and the preparation of an Energy Efficient Building Code as well as the Guidelines for Energy Efficient Building Design for the Occupied Palestinian Territories. Efforts also focus on institutional and human capacity building, specifically at the local level through the provision of training activities for professionals in the sector.
<b>LAND</b>	Land programmes in the Occupied Palestinian Territories include The Rehabilitation of the Agriculture Sector in the North of Gaza project, which aims to replant areas that were uprooted by occupying forces, construct houses and livestock farms, and drill wells in order to revive the area and support the environment and agricultural sectors. The Government of Japan currently funds these initiatives. The Islamic Development Bank funds efforts targeting the northern and southern regions of the West Bank, where activities include land reclamation, land cultivation, and integrated water solutions.
<b>BIODIVERSITY</b>	GEF supports works on agro-biodiversity issues to promote in-situ and on-farm conservation of landraces and wild relatives of field crops, forage legume and fruit trees species originating from West Asia. These initiatives are conducted in two main communities in the Jenin and Hebron districts.

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### PARTNERS

#### Some of our Partners working with UNDP and the Authority in the Occupied Palestinian Territories

Government of Japan	UNEP
Kfw	World Bank
Islamic Development Bank	Government of Spain
Saudi Committee for Palestinian Relief	
Interest Fund	
USAID	

<sup>1</sup>UNDP-GEF projects database: <http://cfapp2.undp.org/gef/site>; GEF Online database: <http://www.gefonline.org/projectDetails.cfm?projID=267>; <sup>2</sup><http://pappsrv.papp.undp.org/en/07/index.htm>;  
 \*Frameworks and Strategies for Sustainable Development

## SAUDI ARABIA



## Progress Towards Environmental Sustainability

MDGs

Protecting the environment and conserving natural resources have been major objectives of Saudi Arabia's national development strategy. These priorities are motivated by the natural endowments of the Kingdom which, with a landmass area of 2.25 million square kilometers, only 5% of this area is arable land, 1% forests, and 1% of irrigated land, while the remaining 93% is arid and semi-arid desert. Moreover, the Kingdom, which is richly endowed with several natural resources, has always had to be cognizant of the relatively limited fresh water and arable land resources.

Total per capita water consumption increased rapidly, from 669 cubic meters in 1985 to 1010 cubic meters in 2000, and total consumption reached 21.1 billion cubic meters in 2000. It is estimated that 89.2% of water is consumed in agriculture, while 57.4% of the water supply comes from non-renewable deep aquifers. In light of this unsustainable trend, the Kingdom aims to reduce water use in agriculture and ensure water conservation methods in all economic and social activities. Nevertheless, all residents have access to safe water resources in both urban and rural areas. Where a public water network does not exist, water is transported by tankers to private or community tanks, or drawn from local wells.

It is estimated that 90% of households had sustainable access to sanitation services in 2000, with 100% service coverage in urban areas and 72% in rural areas. Currently, about 80% of the Kingdom's population has access to modern infrastructure, utilities and services, which is quite an achievement considering the vastness of the territory and the low average population density.

## QUICK FACTS

## CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$350,000
<b>Total UNDP and Co-Finance:</b>	\$5,610,519
<b>Total:</b>	\$5,960,519

Achieving economic diversification and a sustainable economic path without dependence on oil income and other nonrenewable resources remain major challenges for the Kingdom. However, rising demand for basic services and infrastructure competes with investments that need to be made in productive enterprises, making the diversification objective difficult to attain. Encouraging rational consumption and conservation of resources while simultaneously diversifying government income will therefore continue to constitute an ongoing challenge for achieving MDG 7 for environmental sustainability in the Kingdom in the foreseeable future.<sup>1</sup>

## SPOTLIGHT

Environmental Awareness Targets Women and Children<sup>2</sup>

Lack of awareness of the Kingdom's environmental issues has led to a new initiative in enhancing environmental awareness, particularly among women and children. The creation of a centralized approach to biodiversity-related development and advisory services, coupled with enhanced training and operational support in the country has prompted this environmental focus.

UNDP participated in the Saudi Environmental Awareness Project and provided support to the Kingdom's efforts through specialized training in environmental protection. The US\$ 1 million, 3-year project began in 2001 and was led by the National Commission for Wildlife Conservation & Development. In addition, the Natural Resources Conservation Training Centre was established to fulfil the need for enhanced national and regional capacity for biodiversity conservation and the management of protected areas.

The new centre has provided training to numerous rangers, teachers, and housewives in environmental awareness issues. Through the creation of new protected areas and awareness campaigns, women and children have become aware of the importance of the environment and its protection. This project has also had a significant impact on the development of an environmentally-focused school curriculum aimed at raising awareness among students. Public awareness campaigns targeted women and children and ensured the principle of gender equality. The training centre has provided funding for special female trainers and suitable premises exist according to the Kingdom's accepted practices.

Collaboration between UNDP and the National Commission, along with community support and participation ensured the successful implementation of this project. A stable institutional framework has been established and the successful operation of the centre and its training programmes have led to the enhancement of national and regional capacity for biodiversity conservation and the management of protected areas.

UNDP Saudi Arabia is working on several projects in energy efficiency, climate change, and water resources management.<sup>3</sup> Although not at a large scale yet, UNDP is currently mainstreaming environmental awareness and ensure activities towards environmental sustainability. Mainstreaming efforts are planned for small projects relating to community development with the aim of increasing awareness, environment responsibility and achieving sustainability at a decentralized level; a small step towards a giant leap.

**El-Mostafa Benlamlih, Resident Representative**

## PORTFOLIO

### WATER

Initiatives are currently underway in Saudi Arabia with the objective of protecting the environment and the sustainable development of coastal and marine resources. GEF supports and facilitates the conservation of the environment of the Red Sea and Gulf of Aden. The Ministry of Water and Electricity of Saudi Arabia funds water resources management efforts, which provide direct support to the development of strategic water sector management policies through extensive in-country consultations.

### ENERGY

In order to meet Saudi Arabia's rapidly growing power and energy demand, energy efficiency programme efforts are underway and aim to promote efficient and rational consumption patterns, thereby protecting the local environment while at the same time providing a sustainable alternative to increased energy supply and generation capacity expansion. These efforts are funded by KACST, SABIC, SEC, and ARAMCO. In addition, GEF is supporting Climate Change enabling activities that will ensure systematic and accelerated preparation of the first National Communication and report to the UNFCCC.

### BIODIVERSITY

MOFA and NCWCD are funding efforts that will contribute to the overall environmental and sustainable development policy of Saudi Arabia by consolidating the Natural Resources Conservation Training Centre (NRCTC) as a leading training centre for the enhancement of the national and regional capacity for biodiversity conservation and the management of protected areas.



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### PARTNERS

**Some of our Partners working with UNDP and the Government in Saudi Arabia**

KACST  
SABIC  
ARAMCO



## SOMALIA

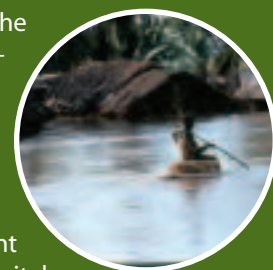
## SPOTLIGHT

**Sustaining Livelihoods through Drought Mitigation<sup>1</sup>**

From 2000 to 2004, Somalia experienced near complete rain failure, prolonging a dry spell that has eroded the traditional coping mechanisms of the predominantly pastoral population. The people of Somalia and the semi-autonomous region of Puntland in the northeast were particularly hard hit by the Indian Ocean tsunami in late 2004. Toxic materials brought ashore by the waves led to export bans on livestock and marine products, exacerbating an already precarious situation.

In the wake of these events, UNDP's Drylands Development Centre, together with other partners, created the new Drought Mitigation and Sustainable Livelihoods Programme, which began on June 1, 2005. Funding of US\$ 4.8 million has been provided for the initial phase of this programme, through UNDP core resources and cost sharing, and will run until 2008. The programme's overall objective is to enhance the pastoral livelihood opportunities affected by the drought, and contribute to food security and increased capacity to cope with future drought situations. The programme will employ NGOs and other UN specialised agencies such as the FAO, ILO, and World Food Programme to ensure the achievement of the programme's specific goals, including improvement of water availability and grazing resources, improved livestock health, and an increase in household incomes. In addition, a strong focus of the project will be the diversification of rural economic opportunities through the development of alternative income-generating activities for women, internally displaced persons, returnees and those falling out of the pastoral livelihood system.

The programme takes an integrated rural development approach, addressing livelihoods and drought mitigation challenges through control and governance of capital and natural resources, facilitating capital and economic opportunities, and improving capacities for sustainable and productive use of land resources. Together, these efforts will help sustain traditional pastoralism in Somalis, while mitigating future drought catastrophes.

LAND  
QUICK FACTS**CURRENT PORTFOLIO BUDGET**

<b>Total UNDP and Co-Finance:</b>	\$4,800,000
<b>Total MPU and Bilateral:</b>	\$15,000
<b>Total:</b>	\$4,815,000



In the aftermath of the Tsunami which has struck the north-eastern Indian Ocean coastline of Somalia on 26 December 2004, a UN report of February 2005 referred to the heightened potential of nuclear and toxic waste hazards on the shores of Puntland. A suspension of purchase of marine products from the region has led to an UN fact-finding mission to establish human health/environment risks associated with the hazards. The analysis and conclusions from the different agencies, should there be more than one, will be linked to an integrated response.

**Maxwell Gaylard, Resident Representative**

## PORTFOLIO

### LAND

Somalia is participating in the Drought Mitigation and Sustainable Livelihoods program in an effort to reverse effects from lack of rainfall and to help mitigate future weather anomalies. For more information on this programme, kindly refer to the Project Spotlight section of this publication.

### CHEMICALS

Under the Montreal Protocol compliance framework for Somalia, UNDP is contributing in the refrigeration sector by development of a refrigeration management plan. The country is also participating in a regional MB phase-out project being implemented by UNDP for low volume consumers in Africa. This project provides policy strengthening assistance that aims to prevent the future introduction of MB use in the country



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# ARAB STATES

## SUDAN



### SPOTLIGHT

#### Rehabilitating Community Rangelands and Creating New Income-generating Activities<sup>1</sup>

Rangelands cover over 60% of Sudan's land area, supporting one of the largest populations of livestock in Africa. Although over half the country's population depend on livestock for their subsistence, cyclical droughts and continuous cultivation have degraded the rangelands, leading to decreasing crop and livestock production, greater pressures on the soil and declining livelihoods. An additional problem is the depletion of the existing vegetation cover due to over-harvesting of timber, fuel wood and other forest products.

UNDP-GEF supported a community-based rangeland rehabilitation initiative for carbon sequestration with a GEF grant of US\$ 1.50 million, created primarily to combat climate change. The initiative has also helped local people rehabilitate their rangelands and livestock and focused on the participation of women and the poor. 17 village development committees were created to address rangeland and water management.

The results have been impressive; the project developed local communities' capacity to monitor and manage their rangelands, and strengthened their legal rights to do so. 100 hectares of rangeland with native perennial grasses were improved and trees and grasses were planted to create 195 km of stabilizing windbreaks. Alternative sources of income were also promoted for local communities as an incentive to reduce cultivated areas, such as new gardening skills made possible through the digging of strategically placed boreholes and installing water pumps to irrigate women's home gardens and promotion of mud bricks for construction as an alternative to timber. Women gained access to credit, revolving funds were provided to secure better quality seed for increased production from smaller plots, and efficient charcoal stoves were introduced in 90% of households.

Word of these successes traveled north and south via pastoralists traveling their traditional routes, so that neighboring communities have now replicated the project's successes.



# LAND

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$4,510,000
<b>Total UNDP and Co-Finance:</b>	\$8,866,000
<b>Total:</b>	\$13,376,000



It is not difficult to recognize that most of the conflicts that are straddling the country at present are directly related to environmental factors involving rights of access to land, grazing resources and water points. It is also not difficult, in Sudan, to recognize that most of these conflicts are involving pastoralists and farmers pushed by poverty, drought, desertification and weak institutional arrangement for environmental management and rural development. Therefore, UNDP is concentrating its efforts on addressing environmental issues as they relate to conflict resolution, poverty and governance issues.

**Manuel Aranda Da Silva, Resident Representative**

## PORTFOLIO

### FSSD\*

The GEF funded National Capacity Self Assessment (NCSA) process ongoing in Sudan aims to provide national stakeholders the opportunity to articulate, thorough-participatory self assessment, analysis of national capacity building needs, priorities and constraints standing against achievement of global environmental objectives as set forth in the Rio conventions.

### ENERGY

Through the integration of climate change issues and concerns into national policies, strategies and development plans, Sudan aims to promote sustainable development paths that improve Sudan's adaptive capacity to future climate change, as well as to its growth in GHG emissions; this is done with the help of GEF and UNDP funds. UNDP also supports efforts to meet growing demand for electric energy in rural and semi-urban Sudan through reliable photovoltaic domestic systems.

### LAND

In an effort to improve agricultural and natural resource use productivity and to reduce and mitigate conflict, Sudan is engaged in an initiative focused on institutional and legal reform in natural resource management, strengthening capacity in government and civil society, promoting measures to reduce and better manage risk in pastoral livelihood systems, and promoting a culture of peace. This effort is being funded by CIDA and UNDP.

### BIODIVERSITY

UNDP is working in biodiversity conservation, especially in Sudan's Dinder National Park, with the objective of preserving the park's biodiversity by encouraging species conservation and the sustainable use of resources through the integration of local communities in the utilization and management of the park's natural resources.

### CHEMICALS

The GEF enabling activity being implemented in the Sudan aims to develop a National Implementation Plan that will establish the framework for sound management of POPs in the country under the Stockholm Convention. In addition, the Sudan is participating in a MLF funded, regional Mr. Br. phase out project being implemented by UNDP for low volume consumers in Africa. This will allow the country to phase out 20% of its Me. Br. Consumption in the post harvest sector.

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### PARTNERS

**Some of our Partners working with UNDP and the Government in Sudan**

CIDA



## SYRIA



## Progress Towards Environmental Sustainability

Despite efforts made by Syria in the field of environmental protection, challenges remain and hold back progress towards environmental sustainability. One notable setback is the lack of integration of principles of sustainable development into government policies and programmes. In order to remedy this, Syria needs to exert additional efforts to ensure greater cooperation and coordination among its ministries and agencies.

The proportion of the Syrian population with access to safe drinking water rose from 65.6% in 1990 to 84% in 2000.

There has also been a notable increase in the proportion of people with access to improved sanitation: this figure rose from 55% in 1990 to 71.8% in 2000. However, urban-rural disparities remain: 44.1% of rural inhabitants and 96.5% of urban inhabitants had access to improved sanitation in 2000, despite large-scale sanitation projects carried out in different parts of the country.

Prospects for access to safe housing in Syria are quite positive. The percentage of people with access to safe housing rose to 96.1% in 2000; this was achieved with the help of the private sector and the Government, which contributed by building workers' housing, popular apartment buildings, and housing for university teachers. To accommodate its growing population, Syria needs to ensure more local and international efforts are geared towards the provision of safe housing for the population.

Progress towards achieving MDG 7 for environmental sustainability in Syria cannot be achieved without increased financial support, environmental awareness, and proper training in order to build safe and sanitary infrastructure that would allow for improved and increased access to basic services.<sup>1</sup>

## QUICK FACTS

## CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$9,574,850
<b>Total UNDP and Co-Finance:</b>	\$2,491,634
<b>Total MPU and Bilateral:</b>	\$3,660,872
<b>Total:</b>	\$15,727,356

**Cumulative Total ODS Phased-Out:** 531.3 ODP tonnes

## SPOTLIGHT

Conservation and Sustainable Use of Dryland Agro-biodiversity in the Fertile Crescent<sup>2</sup>

Expansion of rural and urban communities have led to fragmentation of farmland, forcing farmers to turn to new crop varieties that produce higher yields in smaller fields. Overgrazing in many areas has decimated plants used for foraging and further limited use of arable land, hastening degradation. Conserving local and wild varieties of crops is vital to ensure future food security.

In a project initiated as part of a regional programme in 2000 to improve land management, UNDP partnered with the Government to seek a solution. The GEF provided US\$ 8.23 million for this regional initiative to preserve the genetic diversity of the plant species that are the mainstays of Syria's agricultural economy, including indigenous varieties of fruit and nut trees, as well as field and forage crops in arid areas. Also key was ensuring the livelihoods of farm communities, essential in promoting agricultural productivity.

Results of the project are staggering. During the 5th year, the regional project consolidated its impacts through the extension of areas of landraces by 400 hectares (ha), the reforestation of 70 ha with native species, and the management of grazing over 200 ha within the project sites. The collaborating nurseries are multiplying over 230,000 new seedlings, and 5 gene banks have been established. In the hilly terrain south of Damascus, the project has successfully rehabilitated 70 ha of overgrazed rangeland and demonstrated effective water harvesting techniques. In terms of training, the project supported graduate study for 7 staff and organized 38 training courses and workshops for over 1,430 participants, including teachers and almost 400 women, and 5,000 local farmers and school children have been taught the importance of the conservation of indigenous crop strains. Lastly, assistance from FAO hastened the drafting of national guidelines on genetic plant exchange, which have been presented to Parliament for review.

In the area of environment, UNDP Syria has been working closely with the government towards establishing linkages between environmental initiatives and poverty alleviation efforts, and incorporating environmental priorities into the national development planning process. The proposal on 'Land Degradation' that UNDP is now developing with support from the GEF, and which will be integrated into a UNDP-supported economic development programme in the North-Eastern part of Syria is a case in point.



**Ali Al-Za'tari, Resident Representative**

## PORTFOLIO

### FSSD\*

UNDP is working to build the institutional and technical capacities of the General Commission of Environmental affairs of Syria. An outcome of this effort is the development of a National Strategy and Environmental Action Plan that addresses the country's pressing environmental issues and promotes the integration of environmental considerations into development activities.

### WATER

UNDP and the Syrian government are supporting efforts to strengthen Syria's national capacities in integrated water resources management. Activities include pilot case studies for efficient local water management, integrated basin water management, strategic planning and institutional coordination, and human resources development.

### ENERGY

Energy efficiency initiatives, funded by OPEC, GEF and UNDP, aim to reduce GHG emissions in Syria. Efforts are geared towards creating institutional capacity within the Ministry of Electricity to improve energy efficiency both within its own operations as well as among its consumers. In addition, the Government of Japan is supporting the provision of training at the local village level in the operation, maintenance and management of Photo-voltaic (PV) systems in an effort to spread decentralized rural electrification.

### LAND

Efforts are underway to support the Government of Syria in successfully implementing the UN Convention to Combat Desertification through developing, adopting, and implementing a National Action Plan (NAP), with the support of the Government of Finland.

### BIODIVERSITY

UNDP and GEF are supporting the Syrian government to ensure that Syria's globally and nationally significant biodiversity is sustainably used, to promote the conservation and preservation of important wild relatives and landraces agricultural species, and to demonstrate the need for protected area management.

### CHEMICALS

Nineteen projects that directly impacted ODS consumption in the domestic and commercial refrigeration sector have been implemented over a period of seven years by UNDP to assist Syria with its Montreal Protocol compliance. Two projects remain on-going in the commercial refrigeration sector and they support provision of equipment, trials, technical assistance and training in order to ensure sustainable adoption of alternatives.

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## TUNISIA



## Progress Towards Environmental Sustainability

MDGs

Tunisia, a semi-arid country, faces climatic challenges because of irregular and inadequate rainfall, a fragile ecosystem, limited natural resources and the risk of over-exploitation of these few resources.

Recent studies show that 3 million hectares of land in the Centre and in the North suffer serious erosion and over 7 million hectares of land in the south suffer from wind erosion and secondary salinization. To reconcile the agricultural use of lands and soil protection against the different processes of desertification, Tunisia has, for several decades, developed several programmes for reforestation, pastoral improvement, dune fixation and the conservation of soil and water.

With its 1300 km of coast, the Tunisian littoral has various landscapes and important natural resources under a variety of pressure, including pollution, exploitation of sea resources and a concentration of human and economic activities along the coast causing environmental problems linked to the fragility of the marine ecosystems. The utilization of the coastline and adjacent spaces is monitored through various mechanisms with various institutions responsible for the environment, including the Ministry of Agriculture, Environment and Water Resources.

## QUICK FACTS

## CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$117,965,800
<b>Total UNDP and Co-Finance:</b>	\$1,549,113
<b>Total:</b>	\$119,514,913

Great efforts were deployed by adopting regional development strategies to improve the living conditions of Tunisian households through access to basic public services such as drinking water, electrification, health services and education. This strategy provided drinking water in 2002 to 93.6% of the total population, and 82.6% in rural areas. But regional statistics reveal notable disparities with 10% of the population in the Northwest and Centre West with no access to drinking water. The largest proportion of people without access to safe drinking water represented 22.4% in the governorate of Jendouba.<sup>1</sup>

## SPOTLIGHT

Developing Capacity to Combat Climate Change<sup>2</sup>

In an effort to develop the capacity of the Tunisian National Renewable Energy Agency (ANER) to combat climate change and develop a strategy to mitigate GHG emissions, UNDP launched a climate change project in Tunisia with financing from GEF to assist the preparation of the country's First National Communication on the implementation of the UN Framework Convention on Climate Change (UNFCCC).

This process required the preparation of an inventory of GHG emissions, as well as the calculation of projections of energy consumption with a view to assessing mitigation potential. To enable these calculations, ANER, in cooperation with the French company Arcadia, developed an environmental module for its existing software Med-Pro. The environmental module, Med-Pro/Environment, enables calculations of the level of emissions in the energy sector, following the methodology recommended by the Intergovernmental Panel on Climate Change.

The development of Med-Pro/Environment has provided a very useful tool for the preparation of Tunisia's National Communication to the UNFCCC. In addition, as a result of capacity-building in methodologies for GHG inventories, ANER is now in a position to develop a national strategy and action plan for reducing GHG emissions in the energy sector, as well as creating a portfolio of potential Clean Development Mechanism (CDM) projects. All this equips Tunisia with substantive technical competence which could be set at the disposal of other countries, promoting South-South cooperation.

The lessons learned and benefits resulting from this experience demonstrate the importance of this type of cooperation and financing provided by UNDP-GEF in assistance to Tunisia. These actions have strengthened Tunisia's capacity to deal with environmental concerns, and have had a far-reaching impact, both within and beyond the country's borders.

Environment is one of the three pillars of sustainable development and constitutes one of the eight MDGs towards which the international community has committed itself. In Tunisia, UNDP strongly supports the efforts in environmental policy to establish adequate frameworks and strategies. This is reflected by UNDP's portfolio of projects for which environment represents a very large part, especially funded by the GEF.<sup>3</sup>



## PORTFOLIO

**Francis Dubois, Resident Representative**

### FSSD\*

UNDP, GEF, and the Tunisian government are working to improve the capacity of governmental and non-governmental agencies to address pressing environmental concerns. This includes identifying and assessing capacity constraints in the implementation of UN environmental conventions and preparing a national strategy and an action plan, raising awareness and increasing the understanding of the causes and impacts of climate change, enhancing scientific and technical capacity for assessing vulnerability of food production and water resources, and building national capacities in the field of financing of energy conservation.

### ENERGY

With the overall objective of assisting Tunisia in reducing the long-term growth of GHG emissions related to consumption of fossil fuel energy, GEF is supporting the Tunisian government in its commitment to implement an optimal-efficiency building code for residential and commercial sectors. It also aims to reduce the growth of GHG emissions through the design, implementation, promotion and support of an optimised cold appliance energy labelling and minimum energy performance standards programme.

### LAND

The Tunisian Government, DDC, and TPC/S are working to improve the institutional framework necessary for supporting the mobilization of financial resources and partners to implement a National Action Programme to Combat Desertification and building the capacity of regional and local stakeholders in developing a participatory resource mobilization strategy to implement a Regional Action Programme to Combat Desertification.

### BIODIVERSITY

UNDP, GEF, and the Tunisian government are supporting biodiversity efforts focused on enhancing livelihoods of communities and the environment in the surroundings of El Feija national park, removing barriers to genetic erosion of date palm in the Maghreb region, and contributing to the conservation and sustainable use of wetland biodiversity in the Mediterranean.



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### PARTNERS

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<sup>3</sup>MDGR 2004 and [http://www.undg.org/documents/3665-Tunisia\\_MDG\\_Report\\_-\\_English.doc](http://www.undg.org/documents/3665-Tunisia_MDG_Report_-_English.doc); <http://www.tn.undp.org/>; TUNDP Tunisia Country Office Document: "Capacity Building on Prediction of Greenhouse Gas Emissions due to Energy Activities"; <http://www.tn.undp.org/>; "Frameworks and Strategies for Sustainable Development



## ARAB STATES

# UNITED ARAB EMIRATES



## SPOTLIGHT

### Genetic Engineering Preserves Heritage and Combats Desertification<sup>1</sup>

The Red Palm Weevil (RPW) is considered a major pest of the date palm in the Middle East. Over a 5-year period between 1990-1995, the number of RPW infected trees in the UAE jumped from 13,000 to 44,000. The rate of pest infestation is doubling annually and represents a major threat to the date industry. However, in the UAE date palms are far more than just a crop; they are part of a rich heritage – the tree is the national symbol – and a source of shelter and food. In addition, the date palm is an important means to combat desertification and benefit the economy.

The Date Palm Research and Development Programme (DPRDP) was initiated as a 2-phase project in 2000 to protect and enhance the development of country's date palm industry and combat desertification, by developing national capacities, research and expertise in this specialist area of national interest. The project is managed by the UAE University, in cooperation with UNDP, with funding of US\$ 710,000 and US\$ 930,000 respectively for the first and second phases provided by the Government.

UAE's national expertise and know-how in the field of tissue culture and genetic engineering will help protect the various varieties of date palm from undesired pest strains. The annual date harvest has risen more than 53 times since 1961, from less than 6,000 metric tonnes to 316,000 in 2002.

The project's first phase ended in 2004 and the second phase will continue through 2008, building on the results achieved thus far, further developing and consolidating date palm applications in the areas of micro-propagation, genetic fingerprinting and date production.



# LAND

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP and Co-Finance:</b>	\$6,872,485
<b>Total:</b>	\$6,872,485



UNDP and other UN entities, including FAO, UNDP, UNU, and WMO will continue to work with UAE government in the area of environment and natural resources protection and development. Technical support will continue to be provided to improve the capacity of national/sectoral authorities to plan and implement integrated approaches to environmental management and energy development, improve capacity to monitor environmental conditions and trends, and support the effective use of Date Palm to combat desertification and increase its yields.



**Nadir Hadj-Hammou, Resident Representative**

## PORTFOLIO

### FSSD\*

UAE's meteorological services are being strengthened by the development of a Numerical Weather Prediction (NWP) facility. This will enable the section to provide, in addition to the present weather forecasts and information, short and medium range forecasts up to 120 hours to different government branches and other end-users.

### WATER

UNDP in UAE supports activities in Qatar and Oman. The execution of large-scale groundwater recharge/recovery tests in Qatar aims to determine the effects of long-term cycles on recovery efficiency and hence on overall efficiency of recharge schemes. It also addresses issues related to economic feasibility of the large-scale artificial recharge installations and is funded by the Qatari government. The UAE government is supporting work on establishing Geo-Hydro-Meteorological Data systems, Mesoscale Numerical Weather Prediction Model systems and training specialists to operate both systems.

### LAND

The UAE government is working to support the development of the date palm industry in UAE through developing national capacities, research and expertise in this area. It also aims to strengthen the UAE University's tissue culture laboratory for the in-vitro propagation of the best date palm varieties in order to meet the country's needs in planting date palm trees.

### BIODIVERSITY

GEF is working to assist the Sultanate of Oman in further evaluating its capacity building needs, defining country specific priorities, analysing functional capabilities and determining mechanisms necessary to conserve and sustainably use its national biodiversity in accordance with the National Biodiversity Action Plan (NBSAP) recommendations and the GEF guidelines.

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## YEMEN



## MDGs

## Progress Towards Environmental Sustainability

Yemen is a country with scarce water resources. The dry climate that affects 90% of Yemen's area, high evaporation rates, and excessive pumping of ground water have significantly reduced the availability of water in the country.

Moreover, Yemen's soil resources are extremely limited. Arable land constitutes only 2% of the total land surface area. The deterioration of soil resources therefore poses a serious environmental threat, due to the high salinity of soil and desertification, which threatens approximately 97% of the land. To fulfill the national water demand required for the industry and population to develop, there is an urgent need to allocate investment towards infrastructure and to implement technology designed to reduce leakages.

It is no surprise, then, that Yemen faces an enormous challenge in achieving the MDG target for access to safe drinking water, due to the severe scarcity of water resources. Yemen is considering increasing access to water through encouraging private sector participation in urban areas, as well as decentralization and privatization. In rural areas, options are much more limited; cost sharing by beneficiaries and stakeholders seems to be the only current solution. Moreover, enhancing the water sector strategy requires significant improvement in Yemen's administrative capacity by decentralizing financial and administrative policies in water management.

Yemen needs to widely promote the importance of achieving MDG 7 targets and to integrate them into its national development agenda. The implementation of environmental policies and laws protecting the environment are essential if Yemen is to show progress in environmental sustainability. Increased private investment, rural community participation as well as that of NGOs and local authorities are priorities for more efficient management of environmental resources in Yemen.<sup>1</sup>

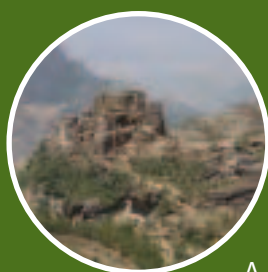
## QUICK FACTS

## CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$1,125,000
<b>Total UNDP and Co-Finance:</b>	\$12,400,000
<b>Total MPU and Bilateral:</b>	\$1,472,730
<b>Total:</b>	\$14,997,730

**Cumulative Total ODS Phased-Out:** 220.0 ODP tonnes

## SPOTLIGHT

Improved Water Governance to Manage Water Conflicts<sup>2</sup>

Disputes over water are common in Yemen, where water resources are low, even by regional standards. In the Middle East and North Africa region, the estimated per capita availability of renewable water resources is 1,250 cubic metres, and the world average is 7,500 cubic metres, while in Yemen, the figure in 1994 was only about 133 cubic metres, and decreasing.

A major limitation in Yemen was the absence of a central water authority and national water policy. Over the past decade, reform of Yemen's water sector has been a major goal of UNDP, in partnership with the Government of the Netherlands. Recognizing the critical nature of water in Yemen, a UNDP/Netherlands project fostered extensive national debate and discussion, involving all major stakeholders in the water sector, resulting in a government-formulated blue print for water sector reforms. The blue print called for, among other things, consolidating the water resources management functions under a single authority and creating the legislative framework to support its functions. The new agency, called the National Water Resources Authority, was established in 1995 and for the first time in Yemen, strategic considerations were given priority over competing interests.

The Water Authority's most significant achievement has been the enactment of the Water Law in August 2002, which established the rules and regulations for water usage and defined specific rights and penalties. The aim is now to define water rights in order to minimize and resolve conflicts over water resources, and establish the institutional mechanisms for resolving water conflict by replacing the traditional top-down water management approach with a system where the water agencies and the local communities work together to manage the catchment water resources.

UNDP has been actively engaged in supporting environmental management in Yemen to ensure the sustainability of Yemen's scarce resources and protect its fragile environment. UNDP focuses on conserving Yemen's unique biodiversity and ensuring the sustainability of its environment, while striving to meet MDG 7 targets. Along with its key national stakeholders, both at the policy and community levels, UNDP is currently working on an overall policy framework that integrates environmental management into national development and poverty alleviation policies and programmes.



**Flavia Pansieri, Resident Representative**

## PORTFOLIO

### FSSD\*

UNDP and GEF are working to strengthen Yemen's institutional capacity and its ability to evaluate, and promote pressing environmental issues, and to integrate environmental, social and economic considerations into national public decision-making. The National Capacity Self-Assessment (NCSA) aims at identifying and determining the nature of capacity constraints faced by the Yemeni government to respond to the global conventions and ways to address these constraints. Meanwhile the Sustainable Natural Resources Management Programme will provide capacity building support at the national, regional, and local levels.

### WATER

UNDP is supporting initiatives that aim to build upon and improve the institutional capacities of water organizations to promote and secure sustainable water and sanitation management. These efforts include The Water Resources Management, Community Water Supply & Sanitation project, which presents a model for long-term, sustainable stewardship of water and sanitation services at the community level; and the National Programme on Integrated Water Resources, which provides a comprehensive response for addressing the water management issues with the objective of alleviating poverty and securing the basis for sustainable development.

### ENERGY

The Development of a National Adaptation Programme of Action aims to fulfil Yemen's requirement under the UNFCCC, in order to deal with the negative impacts of climate change. Other activities include the Climate Change Enabling Activities project, which assists Yemen in the preparation of the proposal for the Second National Communication. GEF is contributing to these energy initiatives.

### BIODIVERSITY

UNDP is supporting the promotion of systemic and integrated human development and biodiversity conservation in the nationally and internationally important Socotra Archipelago of Yemen. This is being done within the context of the Sustainable Development & Biodiversity Conservation Programme, which supports main engines of growth for the local economy through eco-tourism and sustainable fisheries and implements the archipelago's zoning plan and community based management of protected areas. In addition, GEF is funding efforts to prepare the third National Report on Biodiversity to meet the Government's obligation under the CBD.

### CHEMICALS

MLF funding has made possible UNDP's support in the refrigeration sector with the development and launch of implementation of a recovery and recycling programme for commercial and mobile air-conditioning refrigerants.

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# ASIA AND THE PACIFIC

**Afghanistan**

**Bangladesh**

**Bhutan**

**Cambodia**

**China**

**Fiji**

**India**

**Indonesia**

**Iran**

**Korea, Democratic People's Republic of**

**Korea, Republic of**

**Lao, People's Democratic Republic**

**Malaysia**

**Maldives**

**Mongolia**

**Myanmar**

**Nepal**

**Pakistan**

**Papua New Guinea**

**Philippines**

**Samoa**

**Sri Lanka**

**Thailand**

**Timor-Leste**

**Viet Nam**

### REGIONAL SPOTLIGHTS

#### International Waters – Results Globally and Promoting Sustainability in the Pacific Small Island Developing States<sup>1</sup>

Recently, UNDP's GEF International Waters portfolio covers 15 lake and river basins, 11 large marine ecosystems, 12 Strategic Action Programmes and 5 regional and international legal agreements adopted. These include the Global Convention on Ship Ballast Water, and the West Pacific Fisheries, Caspian Sea, and Lake Tanganyika Conventions.

The Western Pacific large marine ecosystem covers 38.5 million square kilometres and is home to 14 Small Island Developing States (SIDS)s. The region hosts the most extensive and biologically diverse reefs in the world, the world's largest tuna fishery, and an array of globally threatened species.

Recognizing their dependence on these fragile resources, in 1997 the Pacific SIDS, through the UNDP-GEF Pacific SIDS International Waters Programme, participate in a regional initiative to produce a Strategic Action Programme. The \$12 million GEF financed project with \$20 million in co-financing has two main components – oceanic fisheries management and integrated coastal and watershed management. The project had a major success in June 2004 with the ratification of the Convention on the Conservation and Management of Highly Migratory Fish Stocks in the Western and Central Pacific, the first regional treaty based on the 1994 UN Fish Stocks Agreement.

The second component of the project, set to conclude in December 2006, is addressing the root causes underlying the unsustainable use of coastal resources, the ongoing degradation of freshwater resources and poor waste management. The project supports changes in institutions, policies and legislation at the municipal, state and national government levels and is investing considerable effort in communications, particularly community education and awareness raising.

## WATER

#### Energy for Poverty Reduction<sup>2</sup>

Efforts by countries in the Asia-Pacific region to meet the MDGs, especially the goal of halving the number of poor, will be impaired unless adequate attention is paid to the crucial role energy services play in the development process, particularly in relation to the economic, environmental and social well-being of the poor. Realizing this fact, and working with the UNDP/GEF, the Regional Energy Programme for Poverty Reduction primarily focuses on enhancing equitable access to appropriate, reliable and affordable energy services to reduce human and income poverty, keeping in line with the overarching goals of UNDP in supporting countries in their efforts to achieve the MDGs and meeting the challenges of energy for sustainable human development.

The programme aims to contribute towards the achievement of MDGs, through broad-based interventions such as improving access to energy services; promoting efficient use of energy; and increasing access to financing for sustainable energy. The three strategic services of policy advocacy; capacity development and knowledge management are key to translating proposed thematic interventions to mainstream energy into developmental agenda for poverty reduction and vice-versa.

So far, studies have been underway to better understand the impacts of rising oil prices on the poor as well as increasing investments for alternative energy services in Asia and the Pacific region. A major focus will be to prepare the Regional Human Development Report (RHDR) on Energy and Poverty, which acts as a tool for policy advocacy. The programme intends to complement ongoing capacity development efforts of the GEF, regional programmes, and global initiatives including national projects. The establishment of a virtual knowledge centre will be to effectively consolidate the learning of the past through analysis of lessons learned and review of existing policy studies and to address the specific need of the various stakeholders in energy sector. The overall efforts would have a gender focus facilitating greater involvement of women in management of energy systems and mainstreaming energy into their areas of operation.

## ENERGY

### Protecting Biodiversity and Innovating Sustainable Use in the Mekong<sup>3</sup>

The Mekong River originates in China, and flows through Myanmar, Lao PDR, Thailand and Cambodia before ending in the Mekong Delta of Vietnam. It is one of the longest rivers in the world, draining an area of 795,000 km<sup>2</sup>. The population living in the Lower Mekong Basin relies on biodiversity as their main form natural resources. However, the river has been dammed for power and drained for rice production, which takes its toll on its nature and biological diversity. Furthermore, despite the rapid economic advances of these countries, poverty levels remain high with the poor tending to be more dependent on commons wetland-based resources such as fisheries and forests.

UNDP and IUCN are assisting Lao PDR, Cambodia, Thailand and Vietnam to protect the biodiversity of the lower Mekong River basin, while testing innovative sustainable use approaches. The project establishes a co-operative network with the Mekong River Commission and other regional organisations. The total budget for the project is approximately US\$ 30 million. GEF covers one third, and another third has been secured through national contributions and donor pledges from the Netherlands Government, IUCN, MRC and UNDP.

The project aims to strengthen capacity for the conservation and sustainable use of wetlands in the Lower Mekong Basin at the national, regional and local levels. It will overcome barriers to effective conservation of global biodiversity. Policy frameworks and economic environments will be strengthened for wetland biodiversity conservation and sustainable use. The project will increase human and technical resources available for wetland biodiversity conservation and create alternative options for sustainable natural resource use by local communities to overcome poverty and secure livelihoods.

# BIODIVERSITY



## AFGHANISTAN



### Progress Towards Environmental Sustainability

MDG7

The MDGs involve a new approach to Afghanistan's development. Basing many socio-economic policies around the needs of Afghan women, for example, reflects a radical change. In terms of environmental sustainability, Afghanistan faces acute challenges. In addition to decades of conflict that have aggravated the poor conditions of the environment, population growth has exacerbated the situation. Afghanistan's urban population is increasing at an alarming rate. Kabul's population alone has increased more than eight-fold over 25 years. At the present rate, the total urban population is expected to more than double by 2015. Achieving the MDG targets of access to clean drinking water and significantly improving the lives of slum dwellers will prove to be a difficult task if urban population keeps increasing at this rapid pace.

Already, Afghanistan ranks the lowest in the world in terms of access to safe drinking water. Moreover, wastewater collection by sewerage systems is limited to a few large cities and only partially treated. Intermittent piped water service, inadequate water treatment, and contamination of groundwater have resulted in a precarious sanitary situation. Poor sanitary conditions pose threats to health and poverty reduction efforts in Afghanistan. The sanitation situation in cities coupled with an urban explosion will certainly hamper the Government's efforts towards achieving several MDGs.

Immediate challenges to achieving MDG 7 in Afghanistan include reducing the population growth rate, accommodating the influx of refugees, considerably improving sanitation, and providing more people with access to safe drinking water.<sup>1</sup>

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP and Co-Finance:</b>	\$216,000
<b>Total:</b>	\$216,000

## SPOTLIGHT

### Building Capacity for Environmental Protection<sup>2</sup>

Afghanistan has faced continuous environmental hurdles and challenges. The conflict in 2001 and continued neglect associated with harsh natural conditions have led to a range of environmental problems in urban and rural areas throughout the country, including lack of effective water resource management, poor waste management, deforestation, increased urban pollution, topsoil erosion, loss of vegetation cover, dispersed wildlife patterns, reduced air quality and a lack of safe artesian water. Unexploded ordnance and mines further exacerbate the current situation.

It is now critical to institute effective environmental protection in the country to reverse and prevent further degradation and ensure the conservation of the environment for the use of future generations. In mid-2004, a GEF-supported project began the initial stages for the development of an initiative to define the environmental capacity needs of the country. The first project, Capacity Development for Sustainable Land Management, was agreed by the Ministry of Agriculture, Natural Resources and Food, the National Environmental Protection Agency (NEPA), and UNDP, signalling the beginning of a focus on environmental concerns, in spite of the ongoing security issues that still permeate the country. Such projects promote stronger links between other actors in the region, for example, the Greening Afghanistan (GAIN) Initiative, which is working to ensure tree survival and monitoring of their growth, established an office at the Ministry of Agriculture and an advisory board comprising the Ministry of Agriculture, Natural Resources & Food, NEPA, and UNEP, strengthening links between all these agencies.

By paving the way for these environmental initiatives, individual projects such as the GAIN initiative can mobilize community efforts. Further projects include the development of an environmental portfolio dedicated solely to categorizing environmental projects. These initiatives are key stepping-stones to evaluating the types of environmental protection that is necessary for the well-being of the people and long-term environmental management in Afghanistan.



The depth of poverty in Afghanistan is reflected in many human development indicators – none more telling than Afghanistan's malnutrition rate - 70 % of the population, worse than any country in the world, bar Congo. At 13 %, the percentage of the Afghan population with 'sustainable access to an improved water source' is the lowest in the world.<sup>3</sup> In order to deal with water issues, the Government is working with international agencies and NGOs to provide the poor with sanitation and better facilities through the development of a National Rural Community Based Water Supply and Sanitation Strategy.<sup>4</sup>



## PORTFOLIO

**Ameerah Haq, Resident Representative**

### ENERGY

Considering the crisis situation in Afghanistan, UNDP with its local partners has conducted a Rapid Country Assessment and Mapping Exercise to identify needs and propose solutions to lack of access to energy in both urban and rural areas. The mapping has resulted in an action oriented proposal that has been shared with donors for funding.

### LAND

Capacity building in Afghanistan is a challenge in general in all sectors; however it is more so considering the issue of land degradation. For this purpose, UNDP through funding from the GEF has initiated an assessment exercise that will assist the Ministry of Agriculture and Livestock to collect the relevant data on land degradation and organize a national consultation process which would lead to a comprehensive intervention to build the capacity of national institutions to deal with the Sustainable Land Management.

### BIODIVERSITY

Conservation and sustainable use of biodiversity is an area where the UN family in Afghanistan is collaborating to assist the government provides sustainable livelihoods for the people while conserving its scarce Tree resources. The Community Mobilization for Tree Survival project, for example, will support the UN led programme "Greening Afghanistan Initiative" (GAIN) in mobilization community actions. The programme will concentrate on building the capacity of the National Environment Protection Agency (NEPA) to monitor, evaluate and report the GAIN initiative and ensure community mobilization to increase the tree survival rate during plantation and maintenance.



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WFP

## BANGLADESH



### Progress Towards Environmental Sustainability

Consumption of wood for fuel has contributed to deforestation and other environmental problems in Bangladesh. As a result, around 9000 hectares of forestland are lost every year. Bangladesh is signatory to the Convention on Biological Diversity and several projects addressing biodiversity are being implemented. However, weak institutional capacity prevents Bangladesh from accessing its share of globally competitive resources.

Carbon dioxide emission in Bangladesh is little compared to the global consumption pattern, as more than 60% of energy consumption comes from biomass and more than 60% of the commercial energy used comes from natural gas. Non-commercial energy sources, such as wood, animal wastes and crop residues, are estimated to account for over half of the country's energy consumption. Currently, 20-30% of total organic energy demand is met by fuel wood, and the remaining from agricultural by-products and cow dung. There is urgent need for introducing alternative energy technology in the rural area. The lack of alternatives has already adversely impacted the greener concerns of environment and if allowed to continue, will lead to the rapid depletion of forest resources.

Access to improved sanitation in rural areas has increased from 11% in 1990 to 29% in 2002. In the case of urban areas, however, coverage dropped from 71% to 56%, mainly due to unplanned urbanization that has been taking place in recent years.

Recognizing the importance of access to sanitation, the Government declared its own target of achieving 100% sanitation coverage by 2010, and has allocated 2% of its annual development budget for this task.

In 1999, nearly half the urban population lived in marginal or informal settlements with little or no rights to public services such as water, sanitation and electricity. About 26% of urban poor households owned a dwelling unit, although only 18% owned any land. The majority (75%) of urban poor households are made of temporary material and on average only 22% have access to electricity.<sup>1</sup>

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$13,836,275
<b>Total UNDP and Co-Finance:</b>	\$39,947,070
<b>Total MPU and Bilateral:</b>	\$857,475
<b>Total:</b>	\$54,640,820

**Cumulative Total ODS Phased-Out:** 172.2 ODP tonnes

## SPOTLIGHT



### Building Capacity to Host the CDM<sup>2</sup>

The Clean Development Mechanism (CDM) enables developing country entrepreneurs and others to receive investment funds for projects that reduce GHG emissions. UNDP initiated a project in 2002 to assist Bangladesh to develop the institutional capacity for hosting the CDM, in collaboration with local NGO Waste Concern. A Designated National Authority (DNA) was established after extensive consultations with stakeholders and relevant Ministries. The main task of the DNA was to establish clear guidelines for receiving, reviewing and approving CDM projects, in line with national sustainable development objectives.

In order to raise awareness among the private and public sectors, local- and national-level workshops were organized by Waste Concern, and a step-by-step booklet on opportunities under CDM projects in Bangladesh was also published. Waste Concern identified and prioritised several CDM projects for Bangladesh – taking into account the current market rate of Certified Emission Reductions – and discussed them with relevant public agencies and private sector entrepreneurs. To date, with support from UNDP, Waste Concern has prepared a baseline study and business plan on a Landfill Gas Recovery project, two composting projects and a poultry waste project. It has also successfully designed four waste projects, some of which have received interest from European investors to provide finance. These investments are helping to make the projects more economically viable and could potentially lead to tangible social and environmental benefits.

This capacity-development project served as a significant catalyst to promote CDM-related activities in Bangladesh. In addition, it enabled Waste Concern to build their capacity on CDM and become a nationally-recognized actor on CDM issues. Most importantly, the project has successfully revealed many of the capacity needs in the country, and helped to identify and provide solutions for building the necessary institutional frameworks for implementing CDM projects.

"UNDP Bangladesh's efforts to protect the environment and reverse environmental degradation must go hand in hand with socio-economic development. Fortunately, it is possible - with the right approaches and with the right technologies - to improve the quality of life for low-income communities in ways that are beneficial to the environment, especially when these communities are empowered to assume responsibility for the management and conservation of their own natural resource base."



**Jorgen Lissner, Resident Representative**

## PORTFOLIO

### FSSD\*

Several initiatives are underway in Bangladesh to address key national priorities in the environment and its related sectors through capacity building at all levels. These include conducting a thorough assessment and analysis of the capacity needs and constraints to meet global environment management obligations, facilitating participatory community-based fisheries side by side with sustainable human development in coastal fishing communities, and enhancing the level of food security and nutrition integrated communities in and around extension training centres.

### ENERGY

Bangladesh has adopted the climate change convention as part of a strategy to increase access to sustainable energy resources and reduce GHG emissions. For this purpose, UNDP has supported two projects for promoting cleaner energy use with a focus on implementing alternative fuel programs for the country, carrying out institution-building studies, and facilitating technology transfer to enable the use of clean energy in the transport sector. In addition, the intervention aims to create an enabling environment to facilitate the adoption of energy efficient and cost effective kiln technologies to reduce GHG emissions.

### BIODIVERSITY

To ensure sustainable use and conservation of biodiversity resources in Bangladesh, UNDP is embarking on three programmes to develop a Biodiversity Strategic Action Plan (BSAP) that will enable the building of a unifying framework to guide and coordinate various biodiversity-related programs, establish and demonstrate an innovative system for management of ecologically critical areas through the Coastal and Wetland Biodiversity Management project, and establish a farmer-based strategy for seed conservation to integrate, enhance in-situ and ex-situ conservation of agricultural biodiversity through the Agricultural Biodiversity project.

### CHEMICALS

UNDP, in close cooperation with the Government of Bangladesh, is implementing nine projects that aim to increase country capacity to meet Montreal Protocol targets. Continuous support is provided through an institutional strengthening programme that ensures effective national environmental management policies. In the refrigeration sector, UNDP supports the implementation of the RMP through execution of a recovery and recycling project. Additionally, a national ODS phase-out plan that targets the solvents and the refrigeration servicing sub-sector is under implementation. In support of the objectives of the Stockholm Convention, UNDP is assisting Bangladesh with implementation of an enabling activity that will result in development of a NIP.



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### PARTNERS

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DANIDA



### Progress Towards Environmental Sustainability

MDG7

Bhutan has a rich natural endowment with an extremely abundant forest cover of 73% and with 26% of its territory established as protected areas to conserve its rich biodiversity. Additional areas constituting 9% of the total land area have also been designated as biological corridors that connect the protected areas.

Among the key challenges confronting the goal of ensuring environmental sustainability is the rapid population growth that Bhutan is experiencing. While the growth level has come down from 3.1%, the present growth rate of 2.5% still poses a serious threat to the country's environmental resources.

Bhutan's target is that by the end of the Ninth Five Year Plan in 2007, 100% of the population will enjoy access to safe drinking water. This will require the annual construction of 130 new schemes, in addition to rehabilitating and maintaining numerous old schemes. As the overall percentage of people without access to safe drinking water decreased from 55% in 1990 to 22% in 2000, the MDG target has already been achieved.

With increasing pressures on grazing land, agriculture, and forest resources, the protection of forest lands and conservation of biological diversity are expected to become ever more difficult. Bhutan's fuel wood consumption per capita is particularly high. Overgrazing by domestic livestock has further been identified as a serious environmental threat with great potential to impact forest regeneration and effect changes in natural vegetation. Recently, air and water pollution near industrialized and urban areas have been of concern.<sup>1</sup>

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$6,408,600
<b>Total UNDP and Co-Finance:</b>	\$247,140
<b>Total MPU and Bilateral:</b>	\$60,000
<b>Total:</b>	\$6,715,740

## SPOTLIGHT

### Working with Rural Communities to Conserve Wood Energy<sup>2</sup>

Bhutan has one of the highest per capita domestic fuelwood consumption in the world, particularly in rural areas. The people of the Trashigang district are among the most devout Buddhists in Bhutan, with religious institutions the largest consumers of fuelwood after rural households, due to the religious festivals and rites that provide food and beverages for monks, devotees and lay people. Trashigang is however one of the districts with the most severe fuelwood shortages, which is threatening the sustainability of the forests and the religious events. Fuelwood collection distances have also increased over the years, making this task one of the most arduous activities for rural women.

The GEF Small Grants Programme, together with the local community and UNDP, established a 1-year project in 1999 to reduce fuelwood consumption and the time spent on collection. The project installed shielded metal cooking stoves with hot water jackets, two each in ten religious institutions, at a cost of US\$ 33,069. The Bhutan Youth Development Agency (BYDA) was the main project proponent and actor, with the Trashigang District administration providing logistical support.

As a result of the project the community kitchens reported that fuelwood consumption dropped to at least a half, saving roughly 220-280 tonnes of fuelwood a year. The improved stoves also contributed to increased cleanliness of community kitchens, reducing cooking time and lowering smoke-related health risks to kitchen users.

By selecting religious institutions, the stoves were given great exposure and generated a widespread public response. The Trashigang District has consequently embarked on a project to install similar stoves in some 14 additional religious institutions with UNDP funding. BYDA's involvement of young people in implementing the activities helped ensure the project's success and created a precedent for the youth development-environmental conservation linkage.



UNDP is helping Bhutan at the national level through advocacy, policy advice and support for countrywide conservation strategies. This includes the preparation of assessments and plans to strengthen Bhutan's environmental management strategy.<sup>3</sup> "Focus should be shifted to environmental conservation as an opportunity for, rather than a constraint to, development in Bhutan. Indeed, in many respects conservation is development for the country. Hydropower, which already contributes some 40% of the GDP, has almost unlimited potential in Bhutan and constitutes a national incentive to preserve forest cover, provided that local communities in affected areas also benefit."



**Renata Lok Dessallien, Resident Representative**

## PORTFOLIO

### FSSD\*

Bhutan's efforts to identify needs and priorities for capacity building with respect to the global environment taking into account the three Rio Conventions and associated thematic areas of biodiversity, climate change and desertification are being supported by UNDP to develop a combination of an environmental action plan, climate change adaptation programme, and national capacity self assessment. Due to the vulnerability of the country to natural hazards, UNDP is launching the Thimphu Valley Earthquake Risk Management project which will undertake a vulnerability study of Thimphu Valley and draft an action plan for an earthquake disaster scenario.

### BIODIVERSITY

Development and implementation of a management plan for Thrumshingla National Park is an essential undertaking to ensure the conservation and sustainable use of biodiversity resources in Bhutan. Several initiatives are underway to help Bhutan address threats to indigenous livestock and crop genetic resources and to assess capacity building needs, identify specific priorities to promote national biodiversity, improve availability and sharing of information for policy makers and the public.

### CHEMICALS

With MLF funding, UNDP is assisting Bhutan to meet Montreal Protocol targets through the implementation of an investment project under the refrigerant management plan. The project aims to provide technical assistance to servicing establishments and end-users to retrofit existing CFC-based refrigeration equipment to alternatives. It also provides basic tools and training to servicing enterprises to promote better and more efficient refrigeration management practices.



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### PARTNERS

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<sup>3</sup>Bhutan MDGR 2002 [http://www.undg.org/documents/158-Bhutan\\_MDG\\_Report.pdf](http://www.undg.org/documents/158-Bhutan_MDG_Report.pdf); <sup>4</sup>Norbu, P.U and Giri, S., "Working with rural communities to conserve wood energy: A case study from Bhutan" in Energy for Sustainable Development in Asia and the Pacific Region: Challenges and Lessons from UNDP Projects, New York: UNDP, 2004: <http://www.undp.org/energy/esdasiapac.htm> and SGP Online database: <http://sgp.undp.org/index.cfm?Module=Projects&Page=ShowProject&ProjectID=3287>; <sup>5</sup><http://www.undp.org.bt/environment.php>; <sup>6</sup>Frameworks and Strategies for Sustainable Development

## CAMBODIA



### MDG7

#### Progress Towards Environmental Sustainability

Cambodia has a set a number of country-specific targets to contribute to environmental sustainability. Trends indicate that much still needs to be done if Cambodia is to achieve MDG 7 by 2015. Addressing the issue of energy substitution toward greater use of environment-friendly sources, for example, is one of the requirements for more efficient use of energy. The lack of investment in alternative sources of energy has led the rural population to rely almost exclusively on wood to satisfy their energy requirements. By providing investment and better distribution of alternative and affordable energy sources to the rural population in particular, the government will reduce dependency on imported fuels.

Access to safe water supply is twice as high in urban than in rural areas. The trend is upward in both rural and urban areas, though only in the former will Cambodia meet its MDG target of 50% by 2015.

There is a dire need to strengthen state land management through integration and to register public land. Preservation, trading and concession, rent or transfer of state land for socio-economic development purposes are creating difficulties and will aggravate environmental degradation if those public lands are not properly managed.

In 1998, only 8.6% of the rural population and 49% of the urban population had access to improved sanitation. Progress has been made since then at a moderate pace, which will enable Cambodia to meet the MDG sanitation targets by 2015. At the current rate, 100% of urban dwellers and 55% of rural dwellers will have access to improved sanitation, which would exceed the envisioned targets of 74% and 30% respectively.

There is a wide national consensus that improved natural resource management could contribute significantly to the development process and assist not only in environmental sustainability, but also in poverty reduction, rural development, and employment generation.<sup>1</sup>

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$34,199,310
<b>Total UNDP and Co-Finance:</b>	\$826,730
<b>Total MPU and Bilateral:</b>	\$647,500
<b>Total:</b>	\$35,673,540

**Cumulative Total ODS Phased-Out:** 20.0 ODP tonnes

## SPOTLIGHT



### Mountain Forest Mecca Rewards Sustainable Management<sup>2</sup>

Ignored for over two decades due to the conflicts, the Cardamom Mountains in southwest Cambodia is cloaked in a wide variety of natural habitats that reflect the areas topography and varying climate. Opened to the outside world in 1998, many opportunists and business dealers sought to exploit its vast array of biological diversity. Activities included illegal logging, commercial forest product harvesting, and land grabbing in advance of expected future immigrants returning from the war. This cocktail of human pressures is increasingly threatening this 2004 World Heritage Site nominee.

Initiated in 2001, the Cardamom Mountain Conservation Project was established to create two wildlife sanctuaries, the Phnom Aural Wildlife Sanctuary and the Phnom Samkos Wildlife Sanctuary. The two sites are located at each either of the Cardamom Mountain Range and cover over one million hectares of forests – representing 5% of the total land area in Cambodia. Expected to run until 2006, the project is funded by a US\$ 900,000 grant from the GEF with co-financing of US\$ 2.54 million, and is implemented by Fauna & Flora International (FFI) and the Ministry of Environment of Cambodia. GEF resources are being used in support of interventions in the two sanctuaries where threats are most immediate, while the Central Cardamoms Protected Forest project implemented by Conservation International (CI) conserves the intervening area to maintain continuous forest cover linking all protected sites.

FFI and CI have worked with their partner organizations to recruit and train over 100 rangers, many from local communities. Alternative livelihood programmes have been set up and local community access rights for the sustainable use of natural resources is being promoted, while enlisting the active support and participation of the communities. Conservation awareness, education programmes and local NGO support will further contribute to the long-term sustainability of the sanctuaries.

Environmental degradation is a serious issue in Cambodia, as many of the rural poor directly depend on natural resources for both food and income.<sup>3</sup> Over 20% of the income of poor households comes from common access resources, mainly fisheries and forestry, which serve as a “safety net” when other sources fail. Effective implementation of natural resources reform is essential to alleviate poverty in Cambodia.<sup>4</sup> “With so much of poverty being in rural areas, empowering the rural poor to have access to natural resources seems to be a key to any progress on improved rural livelihoods whether from land-based agriculture, fish/aquaculture, or the forests.”



**Douglas Gardner, Resident Representative**

## PORTFOLIO

### FSSD\*

Cambodia has several strategic initiatives focusing on the development and strengthening of national capacities for sustainable management and use of its natural resources and the environment. In addition, a National Adaptation Programme of Action for Climate Change addresses the urgent and immediate needs of Cambodia for adaptation to the adverse effects of climate change in key sectors such as agriculture, water resources, coastal zone and human health.

### ENERGY

Continuing its efforts to reduce GHG emissions and provide clean and affordable access to energy resources, Cambodia has been embarking on a number of programmes with the assistance of UNDP. For example, the Energy Emergency project is assisting Cambodia in defining and formulating the removal of barriers to energy efficiency and energy conservation. In addition, the country is committed to conduct a self-assessment exercise aiming in preparation for the second national communication to the UNFCCC through stocktaking and stakeholder consultation process.

### LAND

UNDP is supporting Sustainable Land Management in Cambodia through a project that aims to assist the country in defining human and institutional capacity building needs and formulating the appropriate plan of action to address land management in a comprehensive manner.

### BIODIVERSITY

Biodiversity conservation and sustainable use is one of the priority areas in Cambodia where several UNDP projects have been undergoing. These projects contribute to biodiversity conservation through programmes such as, the development of a biodiversity protection strategy and action plan, building national and local government capacity to manage protected areas, establishing conservation areas through landscape management, developing systems for monitoring and management of biodiversity, and promoting awareness, education, and outreach on conservation.

### CHEMICALS

As part of its Montreal Protocol compliance programme, Cambodia is working with UNDP in the refrigeration sector by implementing a recovery and recycling project, an important component of its refrigeration management plan. The project provides funding for an incentive programme, distribution of recovery machines and MAC recovery/ recycling units, and the establishment of a centralized recycling network.

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### PARTNERS

**Some of our Partners working with UNDP and the Government in Cambodia**

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<sup>3</sup>Cambodia MDGR 2003 [http://www.undg.org/documents/3634-Cambodian\\_tailored\\_MDG\\_Report.pdf](http://www.undg.org/documents/3634-Cambodian_tailored_MDG_Report.pdf); <sup>4</sup>MSP, 'Developing an integrated protected area system for the Cardamom Mountains'; <sup>5</sup><http://www.un.org.kh/undp/?url=/undp/areas/environment.asp>; <sup>6</sup>[http://www.undg.org/documents/5582-Cambodia\\_UNDAF\\_2006\\_-\\_2010\\_.pdf](http://www.undg.org/documents/5582-Cambodia_UNDAF_2006_-_2010_.pdf); <sup>7</sup>Frameworks and Strategies for Sustainable Development



### Progress Towards Environmental Sustainability

Despite strong commitment, China is not yet on track in reversing the loss of its environmental resources. China's large and growing population, combined with inappropriate land use practices, have harmed the quality of scarce productive land and other natural resources. This has led to various forms of land degradation including grassland destruction, soil erosion, and soil and water pollution, all of which threaten China's rich biodiversity.

China's energy consumption ranks second in the world, and China has become the second largest emitter of greenhouse gases after the United States. China managed to "decouple" the growth of GDP from the growth of energy consumption - largely because it started from a low level of energy efficiency at the outset. Currently China is at one-quarter of the energy efficiency of industrialized countries. The use of enhanced technologies may therefore lead to a more rapid increase in energy efficiency.

With 75% of its population ensured access to safe drinking water, China is slightly behind target, and in view of the many agencies involved, coordination of rural water management needs to be improved. Access to safe drinking water has improved more in cities than in rural areas, and in coastal more than remote and minority areas. About 94% of the urban population and 66% of the rural population have access to improved water sources.

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$441,138,000
<b>Total UNDP and Co-Finance:</b>	\$51,320,275
<b>Total MPU and Bilateral:</b>	\$57,202,900
<b>Total:</b>	\$549,661,174

**Cumulative Total ODS Phased-Out:** 11,891.1 ODP tonnes

Environmental spending in China will increase from 0.7% of GDP in 1996 to a planned 1.7% in 2010. The country has enacted a considerable body of environmental laws and regulations in order to achieve this goal. A sustainable development strategy has been highlighted in China's Tenth Five-Year Plan, which emphasizes coordination between socio-economic development, population management, and environmental protection. The plan sets forth a series of environmental improvement targets for lake, river and coastal water quality, city environment, the agricultural setting, and forest and grassland coverage.<sup>1</sup>

## SPOTLIGHT



### Successfully Phasing-out ODS in Solvents to Protect the Ozone Layer<sup>2</sup>

China is the world's largest producer and consumer of man-made ozone-depleting substances (ODS), which have been found to damage the ozone layer, the earth's shield against ultraviolet (UV) radiation. Increased UV radiation levels lead to higher rates of skin cancer, damage to human immune systems and diminished productivity of food crops.

In 1997, China's solvent sector accounted for about 11,500 tons of ODS or 16% of the country's total ODS consumption, and in 2000 over 2,200 widely dispersed small- and medium-sized enterprises used ODSs. UNDP worked with Chinese authorities to develop a multi-year Solvent Sector Phase-Out Plan to comply with its commitments to the Montreal Protocol, by developing viable alternatives for cleaning processes where solvents were used, and providing companies with new cleaning equipment. Technical assistance activities, training programmes and public awareness campaigns were developed to support the introduction of alternative cleaning processes and ozone-friendly substances. In March 2002 the Montreal Protocol Multilateral Fund approved a US\$ 52 million grant to support China's bid to phase-out consumption of carbon tetrachloride (CTC), trichlorotrifluoroethane (CFC-113) and 1,1,1 trichloroethane (TCA), used as cleaning solvents by 1 January 2004, 2006 and 2010 respectively.

China successfully phased-out CTC by 2004 and a ban on its use as a cleaning solvent has been in effect since 2003. China has also consistently met the annual national consumption control targets for CTC, CFC-13 and TCA since 2000 and CFC-13 is set to be phased-out on schedule. Furthermore, China has implemented effective regulatory and policy measures and continues to work with industry to facilitate the phase-out. With UNDP's assistance ozone-depleting, solvent-consuming enterprises are expected to realize their phase-out targets and it is anticipated that China will be able to completely phase-out TCA by 2010 or earlier.



UNDP supports the Chinese government in integrating its environmental commitments with national development goals and macroeconomic policies. The Chinese Government has begun a renewed commitment towards 'xiaokang' (all round, well adjusted development). The pro-development xiaokang also places an emphasis on efficient management of natural resources and development of environmentally-friendly behaviour in order to ensure environmental sustainability.<sup>3</sup> "UNDP strongly believes, as the country takes even broader steps in economic growth and expanding people's choices, China is in a unique position to achieve all the sustainable human development goals targeted by the MDGs and xiaokang."



**Khalid Malik, Resident Representative**

## PORTFOLIO

### FSSD\*

China has adopted its Tenth Five Year Plan for National Economic and Social Development which included sustainable development as a major objective. UNDP is assisting China in implementing a National Capacity Self Assessment process to ensure that the country's development plans are consistent with national priorities at both the national and local level.

### ENERGY

In terms of access to sustainable energy resources, China is coping with the combined challenges of growing energy needs, limited high quality energy resources, environmental pollution and energy security. The country realizes the need to increase energy savings, energy efficiency and the use of renewable resources while at the same time promoting industrial adjustment and developing energy efficient processes and standards, especially in the major energy consuming sectors. UNDP has supported several projects, an example of which is the promotion of hydrogen fuel cell buses.

### BIODIVERSITY

Conservation and Sustainable Use of Biodiversity is one of the priorities in China. The UN system aims to strengthen the national coordination mechanism for effective biodiversity management, to mainstream biodiversity into the planning and investment process, and to provide management support in targeted pilot areas. Underlining the importance of sustainable agriculture in China and the agricultural way of life, the UN system is supporting the development of an environmentally sustainable agricultural development strategy, and on land improvement and management. An example of UNDP's support through GEF funding is the development and implementation by demonstration of China's National Wetland Action Plan.

### CHEMICALS

The partnership between China and UNDP in the area of chemicals management began in 1992 and has resulted in the formulation and implementation of more than 140 projects. The Montreal Protocol's MLF-funded institutional strengthening programme has served to enhance the management capacities of the State Environmental Protection Administration with regard to ozone related matters. Furthermore, the solvent sector phase-out plan, a multi-year, performance-based programme worth US \$52 million, will ensure total phase-out in this important sector. The successful China-UNDP partnership has also resulted in mobilization of GEF funding for POPs project preparation to support development of a full sized project to reduce production and eliminate use of DDT as an intermediate in Dicol production for leaf mite control, and introduce available and cost-effective alternative products and IPM technology.



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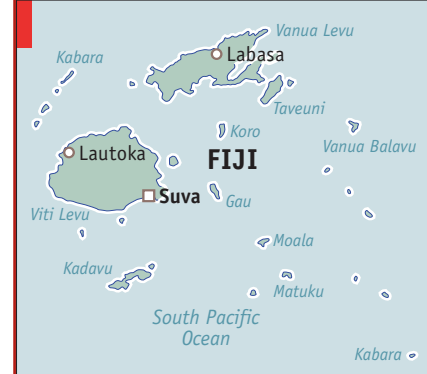
### PARTNERS

#### Some of our Partners working with UNDP and the Government in China

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<sup>3</sup>China MDGR 2003 [http://www.undg.org/documents/3635-China\\_MDG\\_Report.pdf](http://www.undg.org/documents/3635-China_MDG_Report.pdf); "Carvalho, S, "Protecting the Ozone Layer: Montreal Protocol", [http://www.undp.org/seed/eap/montreal/docs/scarvalho\\_choices\\_p30-31.pdf](http://www.undp.org/seed/eap/montreal/docs/scarvalho_choices_p30-31.pdf), UNDP Choices Magazine, Aug 2002 and SEPA and UNDP China: "Progress Report On The Implementation Of The Solvent Sector Plan For OSD Phase-out in China For 2003/2004 and 2005 Annual Implementation Programme, 2003"; [http://www.undg.org/documents/5988-China\\_UNDAF\\_2006-2010\\_-\\_UNDAF\\_China\\_Narrative.pdf](http://www.undg.org/documents/5988-China_UNDAF_2006-2010_-_UNDAF_China_Narrative.pdf); \*Frameworks and Strategies for Sustainable Development

## FIJI AND THE PACIFIC ISLAND COUNTRIES



### Progress Towards Environmental Sustainability

The combined land and marine areas of Pacific Island Countries occupy some 30 million square kilometers, accounting for almost 6% of the earth's surface. Many Pacific Island Countries have very small land areas and high population densities, resulting in intense pressure on land and associated resources. Marine areas are very extensive and typically highly diverse biologically, but are vulnerable to overexploitation, pollution and environmental change. Marine and terrestrial resources remain important across the region for both subsistence use and economic development.

Despite the absence of reliable data, a number of priority regional environmental issues have been identified and a broad consensus reached on their importance. These include: loss of environmental biodiversity, threats to fresh water resources and marine water quality, degradation and overuse of coastal and marine resources, unsustainable forestry and land use practices, climate change and sea level rise, land and sea based pollution, degradation of critical habitats, and waste management.

Data for the Pacific region indicate that the percentage of land area under protection varies from a high of 33% (Kiribati) to a low of 0.27% in Vanuatu. The absence of terrestrial protected areas in Marshall Islands, Palau, Tokelau and Tuvalu reflects the fact that these islands have designated coastal protected areas, which combine both marine and terrestrial elements

## QUICK FACTS

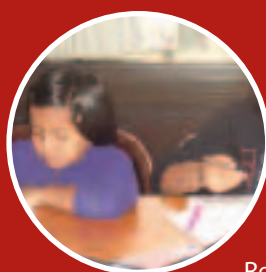
### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$11,086,843
<b>Total UNDP and Co-Finance:</b>	\$2,731,356
<b>Total MPU and Bilateral:</b>	\$11,362
<b>Total:</b>	\$13,931,824

**Cumulative Total ODS Phased-Out:** 5.2 ODP tonnes

Most Pacific Island Countries have committed to phasing out the use of ozone-depleting substances by the end of 2005. Eight of the islands (Micronesia, Kiribati, Marshall Islands, Palau, Solomon Islands, Tonga, Tuvalu and Vanuatu) are participating in a regional strategy to implement the Montreal Protocol; Fiji, Samoa and Papua New Guinea are receiving assistance directly from the Montreal Protocol's Multilateral Fund. The new parties to the Protocol, Cook Islands, Niue and Nauru will participate once funding is received to implement activities outlined in their National Compliance Action Plans.<sup>1</sup>

## SPOTLIGHT



### Turning Garbage into Profit in Kiribati<sup>2</sup>

Garbage – once a source of bad publicity and an eyesore on the beautiful Kiribati landscape – is now being turned into a viable sustainable business venture that is improving the environment, while contributing to the economy.

In 2002, the Foundation of the People of the South Pacific – Kiribati (FSPK) set up the Kaoki Mange Waste Recycling Facility, a joint NGO/private sector-run operation working with the Kiribati Government, with the support of UNDP and 10 other donors. Kaoki Mange means "Return the Garbage". The Kaoki Mange facility is close to achieving its goal of transferring the waste recycling operation to a private company which will run it as a business, making a profit while ensuring the cans, batteries and other solid waste material is recycled in a sustainable manner.

In December 2004, the Government passed the Special Funds (Waste Materials Recovery) Act. The Act established a Special Fund where deposits on cans, PET bottles, and batteries are given to encourage their recovery for recycling. In this way Kaoki Mange receives 1 cent from every can or PET bottle they recover. Moreover, they are able to keep the cans and PET bottles, which they crush and export back to their source, mainly Australia. In this way they remove garbage and clean up Kiribati, while making a profit.

The achievements of the solid waste management recycling project in Kiribati, and the successful way in which it has brought together an NGO, the Government, aid donors, the people of Kiribati and the private sector, who are about to turn it into a sustainable, profitable private business, is a model of partnership for sustainable development. UNDP is now looking at ways in which the project could be replicated in other Pacific countries with similar solid waste management problems.

Environmental problems of PICs are unique to these small island developing states and are of high priority given their fragility and isolated nature. It therefore demands a focus on building capacity that will assist PICs in formulating integrated approaches that improve resource management. Not only it is important to assist countries in developing appropriate policies, but also ensure that local communities are provided the opportunity to meaningfully participate through provision of assistance such as the GEF small grants which is a people's GEF. Reconciling these two ends of the spectrum will substantively contribute to the achievement of MDGs and to the alleviation of poverty in the long run.



**Richard Dictus, Resident Representative**

## PORTFOLIO

### FSSD\*

There are numerous UNDP funded strategic initiatives underway in the Federated States of Micronesia, Fiji, Kiribati, Marshall Islands, Nauru, Palau, Solomon Islands, Tonga, and Vanuatu. These projects include national capacity self assessments, national adaptation plans of action, and biodiversity strategy and action plans that aide in priorities and needs for capacity building to protect the environment and natural resources and to assist in meeting obligations under the biodiversity, climate change and land degradation global conventions.

### WATER

A regional sustainable integrated water resource management project assists ten Pacific Island countries to address the needs and priorities of sustainable integrated management of their water resources that will lead to improved livelihoods and ecosystem integrity.

### ENERGY

Rural electrification is a major priority, in particular in Fiji. UNDP with funding from GEF is implementing a project with the objective of removing barriers for the implementation of renewable energy systems for rural electrification. This is in addition to a regional initiative to be implemented in Fiji, Samoa and Vanuatu to assist in the design and application of environmentally sustainable transportation systems.

### BIODIVERSITY

UNDP is assisting a number of the Pacific Islands address the conservation and sustainable use of biodiversity considering the critical nature and vulnerability of biodiversity resources. For example, two projects are under implementation in Vanuatu and Micronesia aiming to facilitate, adapt and strengthen local resource management initiatives by traditional landholders, chiefs and their communities and to strengthen local, provincial and national capacity to support biodiversity conservation. In addition, in collaboration with the Conservation Society of Pohnpei and relevant government institutions, UNDP is assisting local community groups to better manage their watershed forest resources through management, surveillance and restoration plans.

### CHEMICALS

Under the Montreal Protocol compliance programme, Fiji is working with UNDP and UNEP in developing a project to phase-out newly identified methyl bromide consumption and to provide identified additional assistance with activities typical of those in an RMP update to sustain the phase out of CFCs first achieved in 2000. These activities will all figure as part of a strategic national ODS phase-out strategy.

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### PARTNERS

**Some of our Partners working with UNDP and the Government in Fiji and the Pacific Island Countries**

Government of Japan



### SPOTLIGHT



#### Phasing-out ODS in the Refrigeration and Foam Sectors<sup>1</sup>

UNDP is working with public and private partners in India to assist the country in meeting its commitments to the Montreal Protocol on Substances that Deplete the Ozone Layer. In 1997, India's Ministry of the Environment and Forests, with the support of UNDP, developed a project involving eight small and medium-sized enterprises that manufacture rigid polyurethane foam. UNDP worked with a local supplier who developed a chemical formulation that allowed these companies to use ozone-friendly substitute technologies. The project was successfully completed in 2000, and UNDP went on to develop three more similar projects covering another 70 companies.

Through ongoing cooperation with the Ministry, UNDP is currently implementing three sector phase-out plans to completely eliminate the use of chlorofluorocarbons (CFCs) in the foam and refrigeration manufacturing sectors by 1 January 2007, as well as in the refrigeration servicing sector by 1 January 2010. In order to achieve these goals, the Montreal Protocol Multilateral Fund provided US\$ 3,609,186 for India's Refrigeration Manufacturing Phase-out Plan (US\$ 673,200 of which is managed by UNIDO for activities in the refrigeration transport sub-sector), US\$ 5,424,577 for the Foam Sector Phase-out Plan, and US\$ 1,522,260 for the Refrigeration Servicing Sector Phase-out Plan, which benefits from additional parallel bilateral Multilateral Fund grants implemented by the Governments of Germany and Switzerland. These plans will cover technology conversions in all remaining eligible enterprises through a combination of investment, technical support and management and policy support activities.



Since these programmes began, India has consistently met its annual phase-out targets. With the close cooperation of the Ministry of Environment and Forests, the phase-out plans in India are progressing well towards achieving their target of completely phasing out CFCs in the foam and refrigeration sectors.

### QUICK FACTS

#### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$176,685,725
<b>Total UNDP and Co-Finance:</b>	\$34,111,760
<b>Total MPU and Bilateral:</b>	\$22,843,850
<b>Total:</b>	\$233,641,335

**Cumulative Total ODS Phased-Out:** 6,247.2 ODP tonnes





In India, the community-centred natural resource management initiatives have widely demonstrated positive impact in reversing environmental degradation and strengthening rural livelihoods. The initiatives enhance the capacity of communities and institutions of decentralised governance for integrating sustainable natural resource based livelihoods in participatory micro planning while ensuring equity, transparency and accountability approaches to poverty elimination through ecologically sustainable livelihoods. UNDP is implementing, with the Government and other stakeholders, a comprehensive programme in the areas of climate change, biodiversity, land degradation and chemicals management, with a view to strengthen India's capacity to fulfil its obligations under agreed international environmental treaties and conventions.



**Maxine Olson, Resident Representative**

## PORTFOLIO

### FSSD\*

Two strategic initiatives are underway in India to identify country-level priorities for capacity building in addressing global environmental issues, to demonstrate and replicate the social mobilization approach for poverty alleviation, to strengthen decentralized management of natural resources, and to strengthen partnerships between women's groups, and civil society.

### WATER

In line with India's efforts to enhance the capacity of communities and institutions for decentralised and effective water governance for integrating sustainable natural resource based livelihoods, UNDP has launched a number of projects to strengthen the capacity of the existing and newly promoted people's institutions for conflict resolution between intensive, mechanised and artisanal fisher families; and promoting sustainable livelihood opportunities through the GEF funded Gulf of Mannar reservation project. Another example is the UNDP, DFID, CIDA and the Ford Foundation funded projects aiming to support community-based initiatives towards resolving current deterioration of water quality and depletion of scarce water resources.

### ENERGY

Access to sustainable energy is a priority area in India and receiving the proper attention from UNDP where around 9 projects are currently addressing access to clean and affordable energy. For example, funded by GEF, UNDP and the German government, these projects cover a variety of topics ranging from implementing biomass energy technology, to improving air and water quality through bi-methanation, to helping stabilise GHG emissions and strengthening institutional and technical capabilities in the coal, forestry, non-conventional energy and power sectors.

### LAND

Several initiatives are underway in India to systematically develop, promote eco-friendly agriculture, and provide information systems for water & agricultural resource management. UNDP's assistance also aims to develop a decision support system for sustainable agriculture and to provide women farmers with information on new technologies, appropriate practices and market trends.

### BIODIVERSITY

UNDP's assistance focuses on sustainable use and conservation of natural resources, information dissemination on the biodiversity of marine, coastal and tropical ecosystems, conservation of vulnerable endangered and endemic wild animals and medicinal plants, generating economic incentives to increase conservation action in national parks, and implementing eco development for local populations.

### CHEMICALS

The partnership for enhanced management of chemicals between UNDP and India started more than fourteen years ago and has resulted in successful implementation of 207 projects. There are twenty six on-going projects that current support India's initiatives under its Montreal Protocol country programme framework. These cover the foams, refrigeration, halons and aerosol sectors. A total of 1,508 ODP tonnes will have been phased-out upon successful implementation of these projects. UNDP also provides capacity building assistance national institutions under India's MP institutional strengthening project.

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### PARTNERS

#### Some of our Partners working with UNDP and the Government in India

SIDA	Government of Italy
Ford Foundation	KFW
ICEF	UNF
GTZ	
Government of Germany	
DFID	



### Progress Towards Environmental Sustainability

MDG7

Economic crisis and reform, decentralization, globalization and governance are key determinants for sustainable development and the restoration of depleted natural resources in Indonesia. The economic crisis affected about one third of communities living in forested areas and led to a surge in illegal logging. Decentralization has improved natural resources management, but has also posed risks for biodiversity, which have been regarded by regional governments merely as a source of revenue.

The provision of drinking water is not a development priority in Indonesia, particularly among regional governments.

While the management of this function has been delegated to local governments, financing mechanisms for drinking water facilities and infrastructure are still centralized and the central government is still regarded as fully responsible for the drinking water supply. Given the increasing public demand for drinking water and the limited budget of the central government, the MDG target for safe drinking water will not be reached if present funding trends continue.

Between 1993 and 2001, the proportion of forests to total land area dropped from 67.7% to 64.2%. Reasons for the decrease include plundering, conversion of forested land to other uses and fire. Indonesia's large protected maritime areas, which include nature reserves, wildlife reserves, recreation parks and national parks, have been under threat, making their management an urgent priority. With decentralization and regional autonomy, more and more forests are being exploited, illegal logging has become rampant

and the boundaries of protected areas are being ignored. Underlying causes include poor law enforcement and a lack of understanding of long-term development goals.

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$5,583,600
<b>Total UNDP and Co-Finance:</b>	\$1,439,607
<b>Total MPU and Bilateral:</b>	\$12,111,804
<b>Total:</b>	\$19,135,011

**Cumulative Total ODS Phased-Out:** 1,908.4 ODP tonnes

Enforcing a ban on the import of CFCs has proved difficult in a large archipelago like Indonesia. A decree issued in 2002, aimed to help small and medium enterprises in upgrading their technology to become CFC-free and compatible with international standards. The government has also put in place reporting and monitoring mechanisms to reduce illegal imports and distribution.<sup>1</sup>

## SPOTLIGHT



### Phasing-out ODS in the Refrigeration and Foam Sectors to Protect the Ozone Layer<sup>2</sup>

In the 1970s, scientists found evidence that man-made ozone-depleting substances (ODS) were rising into the stratosphere and damaging the earth's shield against ultraviolet (UV) radiation, the ozone layer. Increased UV radiation levels lead to higher rates of skin cancer, damage to people's immune systems and diminished productivity of food crops. The Montreal Protocol on Substances that Deplete the Ozone Layer and its Amendments set out a schedule whereby countries have agreed to phase out the use of ODS. In his report to the General Assembly's Millennium Summit, the United Nations Secretary General praised the Montreal Protocol as, "perhaps the most successful environmental agreement to date."

In cooperation with the Indonesian Government, UNDP and the World Bank are implementing various components of a 6-year National Phase-out Plan to completely eliminate the use of chlorofluorocarbons (CFCs) in the Indonesian refrigeration sector by 1 January 2008. The Montreal Protocol Multilateral Fund has provided US\$ 15,627,300 to assist Indonesia to achieve this end. This phase-out plan covers the conversion requirements needed in the refrigeration sector to ensure a timely, sustainable and cost-effective phase-out, through a combination of technology conversions, investment programmes, technical assistance, and policy/management support components.

The annual CFC phase-out targets in the refrigeration sector for 2002 - 2004 have been met and all participating enterprises have met the following project objectives: conversion to CFC-free production; depletion of CFC stocks; and destruction of redundant and replaced baseline ozone-depleting equipment. As a result of the close cooperation between the UNDP and the Ministry of Environment, Indonesia is progressing well towards achieving its target of completely phasing-out CFCs in this sector by 2008.

UNDP is engaged in a series of consultations and projects to ensure that important steps to manage natural resources, while protecting the environment, are taken. Operating both at government levels and among grassroots organizations, the projects of the Environment Management Programme of UNDP aim to improve citizens' access to environmental information, to work with business interests toward more sustainable production methods, and to help ensure Indonesia's environmental laws remain relevant and enforced.<sup>3</sup> The very fact that so many diverse nations, as well as various segments of society share commitments on how to address some of the most difficult issues is by itself an achievement.



**Bo Asplund, Resident Representative**

## PORTFOLIO

### FSSD\*

UNDP through its GEF and Capacity 2015 programmes is supporting the Government to assess institutional capacity to effectively achieve the environmental and development goals as stated by the multilateral environmental agreements, to support a series of strategic regional sustainable development plans, alongside capacity building programmes, and to collaborate with other nations who are working toward the sustainable management of the Arafura and Timor Seas.

### ENERGY

The focus of UNDP's support to ensure access to sustainable energy resources is on opening the market potential of micro-hydro power in Indonesia, and encouraging economically sound usage of this type of energy. For example, the GEF funded project on wide-scale sustainable utilization of the micro-hydro resource for power generation is expected to bring power supply benefits, livelihood opportunities and environmental sustainability.

### CHEMICALS

In order to achieve sustainable impact at all levels UNDP and Indonesia have worked together under the Montreal Protocol compliance programme for more than ten years. Approximately seventy projects have been successfully developed covering the foams, refrigeration, aerosols and solvents sectors, while continuous support is provided through institutional strengthening initiatives. Equipment, training and technical assistance is made available through implementation of the sectoral phase-out plans in the refrigeration servicing and manufacturing sub-sectors. Additionally, a national strategy that aims at phasing-out the use of CFCs in the aerosol sector is being implemented.



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### PARTNERS

**Some of our Partners working with UNDP and the Government in Indonesia**

BP  
Global Compact Partners  
EU

<sup>3</sup>MDGR 2004 <http://www.undp.or.id/pubs/MDG2004/index.asp>; Carvalho, S., "Protecting the Ozone Layer: Montreal Protocol", [http://www.undp.org/seed/eap/montreal/docs/scarvalho\\_choices\\_p30-31.pdf](http://www.undp.org/seed/eap/montreal/docs/scarvalho_choices_p30-31.pdf), UNDP Choices Magazine, Aug 2002 and SPMCU, KLH, UNDP and World Bank, "Indonesia Phase-Out Of CFCs in The Foam and Refrigeration Sector: Report on 2003 Implementation, 2005 Annual Implementation Programme and Request For Release Of The Third Funding Tranche"; <http://www.undp.or.id/programme/environmental/index.asp>; "Frameworks and Strategies for Sustainable Development



## IRAN (ISLAMIC REPUBLIC OF)



### Progress Towards Environmental Sustainability

MDG7

Preserving biodiversity has been one of Iran's main environmental priorities.

As the national authority responsible for safeguarding the environment, the

Department of Environment has selected some of the country's virgin lands and untouched natural habitat rich in ecological value to further protect and promote ecological diversity. These include national parks, natural sites, wildlife refuges, and protected areas. In 2002, there were 94 protected areas, 33 wildlife refuges, 13 natural sites and 16 national parks, covering nearly 7.11% of the country's total land surface area. This ratio is promising, as it is expected to reach the international standard of 10% coverage by 2015, thanks to some successful environmental policies by the Government.

The average rainfall in Iran is estimated to be 250 mm annually, which is lower than the world average and also that of the Asian Continent. As a result, Iran's plant coverage is limited. Population growth along with overexploitation of natural resources over the past decades has exacerbated deforestation, making it one of Iran's major environmental problems. Per capita carbon dioxide emissions have jumped up from 4,002 Kg in 1996 to 4,681 Kg in 2001. The consumption of ozone-depleting CFCs has increased from 4,500 tons in 1995 to about 6,179 tons in 2001. The percentage of the population having access to improved sanitation has significantly increased from 64.3% in 1990 to 82.8% in 2000.

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$73,073,800
<b>Total UNDP and Co-Finance:</b>	\$775,000
<b>Total MPU and Bilateral:</b>	\$5,963,918
<b>Total:</b>	\$79,812,718

**Cumulative Total ODS Phased-Out:** 1,002.1 ODP tonnes

Despite real progress in some crucial areas, certain constraints are making it difficult to enhance environmental development in Iran. For instance, there is no comprehensive environmental information system and adequate equipment to continuously monitor environmental trends and progress. Moreover, there are some difficulties in confronting governmental industries that cause pollution and thereby impede efforts towards environmental sustainability. Notwithstanding these challenges, and although there is limited availability of information in some areas, such as data on the number of slum dwellers, Iran is on a steady track towards attaining the MDG targets by 2015.<sup>1</sup>

## SPOTLIGHT

### Integration of Biodiversity Conservation into National Planning<sup>2</sup>

Although Iran has already lost some of its most spectacular carnivores, the Persian Lion and the Caspian Tiger, as a result of uncontrolled hunting and habitat destruction, other threatened species such as the Asiatic Cheetah, and important habitats such as the Zagros mountains and Caspian forests, continue to demonstrate the urgent need for biodiversity conservation measures in the country. In the past however, insufficient inclusion of environmental considerations in macro policies, and a lack of consensus in executing environmental legislation, regulations and monitoring programmes hampered biodiversity protection.

UNDP supported Iran in fulfilling its obligations to the CBD through a Biodiversity Enabling Activity project in 1998, with funding of US\$ 350,000 from the GEF, to prepare a biodiversity inventory, and a National Biodiversity Strategy and Action Plan (NBSAP). The project's intensive stakeholder consultation processes enabled the building of institutional capacity, and helped to establish partnerships across key government agencies, where past sustainable development efforts had been hindered by institutional fragmentation.

As a result of the project, the NBSAP has been adopted by the Government and included in the Law of the 4th Five-Year National Development Plan (2005-2009), the first time that biodiversity conservation has been accorded such high priority in Iran. In addition, the cross-sectoral approach adopted during the development of the NBSAP is now reflected in the multi-institutional arrangements established for its implementation.

The implementation of the NBSAP now enjoys substantial governmental commitment for over 200 action items, and has been financed through the regular governmental development budget since 2002. The total funding to be mobilized over the course of the 4th Five-Year Plan for biodiversity conservation-related actions is estimated at US\$ 12 million. The NBSAP now represents a strong national platform for biodiversity conservation and for mobilizing additional non-governmental resources.



Under the auspices of the Department of the Environment, an interagency group of national professionals are being trained by an international expert to establish Iran's Strategic Environmental Assessment system. In addition, the second phase of Sustainable Management of Land and Water Resources, to be jointly funded by UNDP and the Government, will build on the achievements of the first phase to establish models of participatory natural resource management in central Iran.<sup>††</sup> The goal of UNDP is to support integration of environmental concerns into development planning, as well as participatory management of natural resources and energy efficiency for poverty alleviations and sustainable development.



**Yuxue Xue, Resident Representative**

## PORTFOLIO

### FSSD\*

The main objective to ensure environmental sustainability in Iran is to develop a national regulatory framework to apply Strategic Environmental Assessment (SEA) procedures to policies, plans and programmes. The ongoing SEA project is a joint initiative of the Government of Iran, the private sector and UNDP. UNDP aims to provide the Department of the Environment with the legal, institutional and technical frameworks of the applying SEA.

### WATER

As a post-crisis recovery intervention, UNDP is partnering with DFID and UNOCHA to restore the water supply infrastructure systems, which were affected in the wake of Bam's devastating earthquake in late 2003.

### ENERGY

To increase access to sustainable energy and reduce GHG emissions, UNDP is assisting Iran meet its needs in building the capacity of its institutions. The main activities include acquiring and absorption of technologies, assessment and improvement of existing emission factors, and building capacity for participation in systematic observation networks. Meanwhile, a Carbon Sequestration project aims to demonstrate that desertified rangelands can be cost-effectively reclaimed by and for the benefit of the local people and that there is significant potential to sequester carbon in plants and soil in these areas.

### BIODIVERSITY

To ensure conservation and sustainable use of biodiversity resources, participatory natural resource management is a priority for Iran. UNDP with funds from the Netherlands, GEF and the Government of Iran is assisting the national authorities and NGOs with several projects focussing on better understanding threats faced by the Asiatic cheetah and removal of threats facing biodiversity through enhancing management capacities of local wetland protected areas. Other projects address mainstreaming biodiversity conservation and sustainable use in the Zagros Mountains in other sectors. The development of a National Biodiversity Strategy and Action Plan helped identify priorities for biodiversity conservation.

### CHEMICALS

UNDP's assistance programme to strengthen Iran's capacity towards sound management of chemicals, began in 1991. With a portfolio of approximately seventy projects under the Montreal Protocol, significant progress has been achieved in the sectors of refrigeration and foam. The institutional strengthening support provided for the past eleven years continues to impact directly on the development and adoption of policies, suitable legislative and regulatory framework and coordinated management approach. Building on this successful approach and experience, an enabling activity that will result in NIP development is being implemented under the Stockholm Convention compliance framework. This project establishes the necessary foundation that would enable Iran to progress effectively in complying with its commitments with respect to POPs.

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### PARTNERS

#### Some of our Partners working with UNDP and the Government in Iran

Government of The Netherlands	SIDA
Shell	
International Crane Foundation	
Kohler	
Charlotte Associations	
Earthwatch	
HSBC Bank	

<sup>\*</sup>MDGR 2004 [http://www.undg.org/documents/5457-Iran\\_MDG\\_Report.pdf](http://www.undg.org/documents/5457-Iran_MDG_Report.pdf); <sup>†</sup>UNDP Iran Document, "Iran's Biodiversity Enabling Activity Project" and GEF online website: <http://www.gefonline.org/projectDetails.cfm?projID=207>; <sup>††</sup><http://www.undp.org.ir/EnergyEnvironment.htm>; <sup>\*</sup>Frameworks and Strategies for Sustainable Development

### SPOTLIGHT

#### Raising Awareness and Protecting Biodiversity<sup>1</sup>

The globally significant biodiversity of Mount Myohyang, with its exceptionally high diversity of species, including many threatened and/or endemic species, and wide altitudinal variation in forest-types, is threatened by the encroachment of surrounding farmland. The mountain is of great significance to the people of the DPRK and the preservation of its natural beauty is very important. However, as the notion of biodiversity conservation is new to most people who manage and visit the area, resources have not been fully targeted to most effectively conserve biodiversity in the area. However, the country is now committed to improving biodiversity conservation practices.

In 2000, with GEF support and working with UNDP, the Government launched a project to protect the biodiversity of Mt. Myohyang. The project initiated a protected area management scheme focused on biodiversity conservation. An important aspect of the project was developing information systems, hence over 10 wildlife surveys were conducted to gather information, an environmental resources database was established, a 'Guidebook on Plants in Myohyang' was published, a threat analysis was completed, and the first maps were produced. The project also strengthened institutional and management capacity by reviewing and assisting management and technical procedures, as well as training on bird identification and mammal surveys. In addition, the project provided education on biodiversity and economic alternatives through strategic outreach plans, and drafted interpretative materials such as signboards and booklets to raise awareness among tourists and local communities of the importance of Mt. Myohyang biodiversity conservation.

By enabling management practices based on sound biological principles, developing alternatives to non-sustainable use of resources, and providing education and outreach, this project was successful in increasing habitat range, reducing pressure on biodiversity and increasing understanding of suitable conservation measures. As a result of the project the Mt. Myohyang protected area has achieved IUCN National Park status.



# BIODIVERSITY

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$4,209,123
<b>Total UNDP and Co-Finance:</b>	\$2,717,691
<b>Total:</b>	\$6,926,742



One important objective for UNDP in DPRK is to assist the national team in the preparation of technical documents and a sector strategy study paper for sustainable rural energy, which is planned to be achieved through rehabilitation and modernization of facilities that suffer from outdated technology and a shortage of spare parts. Furthermore, UNDP assistance to DPRK is moving away from sector-oriented programmes to broader cross-cutting thematic areas such as, poverty reduction, gender, environment, natural resources management, and sustainable development.<sup>2</sup>



**Abu Selim, Resident Representative**

## PORTFOLIO

### FSSD\*

A number of UN agencies are cooperating with the Government of Korea in the field of environment to contribute to integrating national environment and development priorities with international environmental agreements and the protection of the global environment.

### ENERGY

Korea is addressing access to sustainable energy resources by launching, with the assistance of UNDP, two projects focusing on assisting the national team in the preparation of technical documents and a sector strategy study paper for sustainable rural energy, while assisting the Government in the formulation of a national programme to revive and modernize energy services benefiting the rural population.

### LAND

Several projects funded by UNDP, Caritas, and PGTF are focusing on training experts capable of developing water resources for preventing drought; enhancing the national capacity for flower and vegetable cultivation; increasing cultivation of sweet potatoes through the provision of virus free planting material; and improving food supply to the rural population by introducing modern methods of rearing and breeding grass eating animals and processing milk products.

### BIODIVERSITY

UNDP is supporting the Government address conservation and sustainable use of biodiversity by the rehabilitation of tree nurseries; planning the sustainable development of the coast of the Gulf of West Korea; and protecting the biodiversity in Mount Myohyang.



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### PARTNERS

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CARITAS  
NEAFF  
PGTF

<sup>1</sup>UNDP/GEF Project Document, 'Conservation of Biodiversity at Mount Myohyang in the Democratic People's Republic of Korea'; UNDP DPRK Country Office Document, 'UNDP's Involvement in Environment/Energy Sectors in DPR Korea'; <sup>2</sup><http://www.undp.org/dpa/journalists/DPRK.pdf>; \*Frameworks and Strategies for Sustainable Development

### SPOTLIGHT

#### Establishing a Biosphere Reserve Across Borders<sup>1</sup>

The lower Tumen River area, bordered by China, the Democratic People's Republic of Korea (DPRK), and Russia, is an important Northeast Asian zone for regional economic cooperation. The Tumen River Area Development Programme (TRADP) was established in 1991 with the goal of facilitating economic cooperation among member countries: China, Mongolia, the DPRK, the Republic of Korea (ROK) and Russia. The region is rich in biodiversity and is the last habitat on earth for the Far Eastern Leopard, currently estimated to number only 30-40 in the world, and home to the endangered Siberian Tiger. The lower reaches and the estuary of the Tumen River also boast a vast wetland complex. These areas serve as a critical habitat and a major migratory path for over 200 species of migratory birds, including 36 globally endangered species.

The 2001 'Second Workshop on Environmental Peace in Northeast Asia', held in Yanji, China, was the impetus for a project to assess the feasibility of establishing a Lower Tumen River Area Transboundary Biosphere Reserve. The 2-year project beginning in 2002 was funded by UNDP, TRADP and the Government of the ROK. The project's main objective was to provide a feasibility basis and guidelines to establish the reserve as an international mechanism for promoting the long-term conservation and sustainable use of biodiversity in the area.

Over the course of two years, the project has realized its aims by increasing awareness on the status of neighboring protected areas across the borders in China, the DPRK and Russia, and initiating cooperative relationships through exchange visits between local government representatives, protected area managers, experts and NGOs in the lower Tumen River area. The project's final report, written in the four languages concerned— Chinese, English, Korean and Russian, provides a proposal for the creation of a Transboundary Biosphere Reserve in the lower Tumen River area.



# BIODIVERSITY

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$2,956,321
<b>Total:</b>	\$2,956,321





Recently, in line with one of Republic of Korea (ROK) Government's national priorities is to implement and develop various environmental policies to realize environmental soundness, economic efficiency and social balance and to open doors to an era of life-respecting, participatory green nation. UNDP/ROK environment programme will provide room initially for two GEF supported projects and one UNDP-assisted intervention, all with a view to enabling the country to meet its environmental obligations better. In carrying out these projects, the programme will reinforce the achievement of the Development Cooperation Programme objectives as all three undertakings have significant regional implications.



**Anne-Isabelle Degryse-Blateau, Resident Representative**

## PORTFOLIO

### WATER

The Korean Government is taking the lead in addressing Integrated Water Resources Management, in particular those of transboundary nature. The Transboundary Biosphere Reserve project is underway for the conservation and sustainable development in the lower Tumen River area focusing on promoting necessary cooperative activities among stakeholders of the participating countries.

The area, bordered by China, DRPK and Russian Federation, contains high biodiversity such as wetlands, marine resources as well as internationally endangered Siberian Tigers and Far East Leopards.

### LAND

The Korean government is funding three programmes that are focused on developing and formulating support systems and international cooperation on environment-friendly agriculture, developing an agricultural production framework in pursuit of food safety, quality and environmental sustainability, as well as a pilot programme that introduces the concept of EcoCity.

### BIODIVERSITY

Promoting the collaborative approach to wetland conservation through complementary integration of national and local policy and planning frameworks and bringing communities directly into the management planning process are priority areas for conservation and sustainable use of biodiversity. These interventions also include the identification of the effects of soil erosion and developing integrated soil loss protection plans for the Tumen river basin.



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## LAOS, PEOPLE'S DEMOCRATIC REPUBLIC OF



### Progress Towards Environmental Sustainability

Laos is endowed with a diverse, productive and ecologically unique forest that serves as a vital economic resource contributing to the country's GDP as well as its non-agricultural GDP. The forests also make essential contributions to nutrition, income, energy and shelter for the 80% of the Lao population that lives in rural areas and relies on non-timber forest products for subsistence for around half of their cash income and to offset seasonal food shortage. However, the proportion of land covered by forests has seen a significant decline, due in part to harmful cultivation methods and to the increasing population pressure on scarce arable land and illegal logging.

The Lao government has established 20 National Biodiversity Conservation Areas, plus two corridor areas, all of which cover 14.3% of the country's territory. These were established with the purpose of maintaining a stable flow of goods and services through the ecosystem while also preventing natural disasters such as flooding.

A high proportion of the Lao population suffers from diseases related to deficiencies in water supply and sanitation. Nevertheless, there has been progress: between 1990 and 2002 the proportion of the population with access to a safe source of water increased from 28% to 58%, although access in 2002 varied considerably across the provinces and ranged from 38% to 86%. The Government aims to ensure that 80% of the population enjoys access to safe drinking water by 2015. To date, most investment in water supplies has been through external assistance in the form of grants or soft loans. While this aid is expected to continue, there are also early signs of greater involvement from the private sector.

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$1,014,500
<b>Total UNDP and Co-Finance:</b>	\$3,767,832
<b>Total MPU and Bilateral:</b>	\$371,496
<b>Total:</b>	\$5,153,828

**Cumulative Total ODS Phased-Out:** 28.6 ODP tonnes

Coordination among the relevant agencies, national and international, is weak. Responsibilities between different agencies overlap and authorities and lines of accountability are unclear. National institutions also lack financial resources and have limited access to technology. Since these shortcomings hamper the achievement of the MDGs in Laos, improved institutional capacity in environmental management for integrated planning is much needed in order to increase the prospects for environmental sustainability in the country.<sup>1</sup>

## SPOTLIGHT

### Biodiversity Conservation for Poverty Reduction<sup>2</sup>

In PDR Laos, high levels of cultural diversity are matched by a wealth of biodiversity, including tropical forests, wetlands, endangered mammal and aquatic species and a huge number of rice varieties. Given the direct and overwhelming reliance of the country's economy on biodiversity resources – estimated by the Economic Technical Working Group to represent approximately 75% of GDP – it is critical to establish a national strategy for all future economic planning and natural resources use and management.

Since 2001, two government agencies, the Ministry of Agriculture and Forestry, and the Science, Technology and Environment Agency have been responsible for ensuring the sustainable use, protection and management of biodiversity, through the preparation of the Biodiversity Country Report (BCR). UNDP and DANIDA are providing US\$ 677,000 to assist the Government in developing a pro-poor National Biodiversity Strategy and Action Plan (NBSAP), which aims to create a framework for biodiversity conserving as a key to poverty alleviation. The framework will provide the relevant national and provincial authorities with a blueprint for action needed to ensure sustainable use of Lao PDR's biodiversity through a cross-sectoral approach to sustainable management and protection, and to create awareness among stakeholders of the importance and value of biodiversity and of their role in its management.

Since the project's completion in 2004, awareness-raising activities and dissemination workshops have been conducted at national, provincial and district levels. In addition, the BCR and NBSAP documents are currently being published, as well as a CD-ROM on Lao biodiversity, and will be widely disseminated, raising awareness on Lao PDR's strategy to conserve its unique biodiversity.

"Protecting the environment and sustainable use of natural resources in Laos is vital for poverty reduction and economic growth. Recent studies carried out by the UNDP supported project to develop the National Biodiversity Strategy and Action Plan reveal that some 80% of the GNP directly derives from natural resources. ...The Lao government has recognised the threat to the environment and thus, the economy. Therefore, they list sustainable use of natural resources as one of the three principles of socio-economic development. The National Growth and Poverty Eradication Strategy strongly advocates bringing environmental concerns into government policy. In the long run, this will help ensure economic growth and prosperity for the large numbers of poor people in this country."



## PORTFOLIO

Finn Reske-Nielsen, Resident Representative

### FSSD\*

UNDP is assisting Laos in addressing a combination of national capacity needs self assessment, multilateral environmental agreements, and integrated solid waste management. These efforts have led to the identification of critical capacity constraints with the aim to strengthen national environmental governance structures, and to develop a waste recycling model, which provides income generation for urban poor.

### ENERGY

To address sustainable energy services and reduce GHG emissions, Laos has developed a GHG mitigation strategy, prepared the First National Communication report and strengthened capacity related to technology transfer. UNDP is currently working with the Government in developing a National Adaptation and Action Plan that will address immediate and urgent needs related to current and projected adverse effects of climate change in key sectors such as agriculture, forestry, water resources, and human health.

### BIODIVERSITY

Biodiversity conservation combined with social development and poverty reduction has a high priority for the Government of Laos. UNDP has assisted the Government to develop a Biodiversity Country Report (BCR) including two provincial profiles and awareness raising materials as well as biodiversity toolkit which were used as a base for the formulation of a National Biodiversity Strategy and Action Plan (NBSAP). Two regional initiatives across Laos, Cambodia, Thailand and Vietnam are underway to strengthen the capacity of the Mekong River Commission and to collaborate with civil society organizations, NGOs and rural people addressing a range of ecological, economic and social challenges.

### CHEMICALS

Three projects are currently being implemented to assist Lao PDR achieve its Montreal Protocol agreed targets in the foams sector. Through trials, technical assistance and technology transfer, direct impact is achieved towards ODS phase-out. These efforts also serve to enhance national public-private partnerships that are expected to support the ongoing sustainability of Lao's phase-out achievements.



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### Progress Towards Environmental Sustainability

MDG7

Like all countries, Malaysia has had to grapple with environmental degradation issues. Urban-based economic growth has led to increased potential for pollution of the environment. The principles of sustainable development have progressively been integrated into national development plans and policy making in Malaysia. Malaysia is also an active participant in reviewing environmental issues at the regional and international level and has ratified most major multilateral environmental agreements

The total land area for Malaysia is about 33 million hectares of which 19.5 million hectares or 59.5% of the total land area are under forest cover. Out of the 19.5 million hectares, 14.3 million hectares are gazetted as Permanent Reserve Forests and are managed under the Forestry Department of each state.

Crude oil and petroleum products, which provided about 53% of the total energy supply in 2000, are predicted to grow at 6.3 % per year during the Eighth Malaysia Plan period (2001–2005). Natural gas, which contributed 37%, is projected to grow by 8.8% per annum. By 2005, the contribution of crude oil and petroleum products is anticipated to decline to 50.9%, while natural gas and coal are expected to increase to 39.9% and 5.9% respectively. Similarly, the use of renewable energy is expected to be intensified.

Increased access to improved water sources has been a powerful factor in improving health and reducing the spread of infectious diseases in Malaysia, especially among rural communities. As water supply coverage has increased amongst rural population, the incidence of cholera, typhoid, and dysentery has fallen markedly.

The government has been actively promoting environmental sanitation to improve the health status of the population since the 1970s. Almost the entire urban population has been supplied with reticulated sewerage systems and septic tanks by local authorities. In rural areas, sanitary latrines had been provided for 99% of the population by 2000 compared to just 83% in 1990.<sup>1</sup>

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$110,104,950
<b>Total UNDP and Co-Finance:</b>	\$1,749,700
<b>Total MPU and Bilateral:</b>	\$4,483,245
<b>Total:</b>	\$116,337,895

**Cumulative Total ODS Phased-Out:** 2,949.2 ODP tonnes

## SPOTLIGHT



### Land Rights, Cultural Protection and Poverty Reduction<sup>2</sup>

Over the past several decades, destructive logging has caused the loss of a third of the tropical forest cover in Asia, inhibiting species survival and threatening the existence of indigenous communities. Previous attempts to defend land rights and prevent illegal logging enterprises from inflicting further degradation have done little to protect these vital habitats.

In the Malaysian state of Sarawak on the island of Borneo, the Uma Bawang Resident's Association (UBRA) represents a community of under 100 people that successfully used blockades, and now innovative mapping efforts, to defend customary land rights. Since UBRA's first Geographic Information System mapping workshop in 1995, other communities increasingly use this technique to defend their borders and traditional lands legally, in court. The Association also helps communities learn a wide variety of skills that provide cash income, including communal rice farming and milling, pig-rearing, hand-crafts marketing, growing pepper and fruit trees, and developing sustainable teakwood plantations. Projects supported by UBRA provide incomes without endangering forest resources and are complemented by work in reforestation and restoration of damaged forest lands. Since 1992, the Association has planted 4,000 tree seedlings in degraded areas, with an average of 200 fruit trees planted per family.

In recognition of their outstanding efforts for poverty reduction and biodiversity conservation, UNDP's Equator Initiative awarded UBRA with a US\$ 30,000 grant in 2002. UBRA has used the grant to build and expand a community centre, enlarging the reforestation project area, restoring and replanting indigenous tree species, as well as other valuable non-timber products within the communal rehabilitation forest area. Other future initiatives include a revolving fund to assist women's craft activities, short-term cash cropping, inter-community activities, project maintenance and a contingency fund for publications, communication and campaigning.



In Malaysia, UNDP works together with the Government and other partners in developing, co-funding and implementing projects that will contribute to attaining MDG 7, in particular in striking a balance between environment concerns and development priorities. UNDP Malaysia also works on outreach on environmental issues, which aims to create greater awareness among the Malaysian public on sustainable development.<sup>3</sup> "UNDP Malaysia's focus on improved environmental management among indigenous communities is improving their livelihood and helping them better realise their human rights."



**Richard Leete, Resident Representative**

## PORTFOLIO

### ENERGY

Innovative approaches to ensure access to sustainable energy services have been adopted in Malaysia, UNDP has assisted the country in developing several projects to build capacity and remove barriers in utilizing palm oil biomass waste for grid-connected power generation and co-generation in palm oil mills. In addition, to build capacity and remove barriers to efficient energy use in the wood, food, glass, pulp & paper, cement, rubber, iron & steel and ceramic sectors, and to develop Malaysia's Initial Communication and report to the UNFCCC.

### LAND

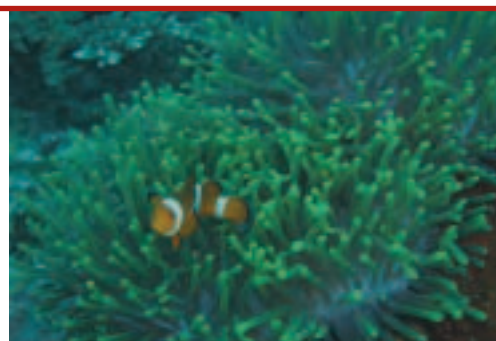
UNDP, in partnership with Japanese government is assisting Malaysia with a focus on the transfer of selective breeding technology for aquaculture improvement from Asia to Sub-Saharan Africa and Egypt.

### BIODIVERSITY

Malaysia has made important steps in Biodiversity conservation. Based on its success in developing policy on highlands development in Peninsular Malaysia, UNDP is extending the programme to include the Sabah and Sarawak highlands. Danida and the Government of Netherlands are partnering with the GEF and UNDP in developing and implementing management plans to ensure the conservation and sustainable use of globally significant genetic species and ecosystem diversity and to strengthen institutional and human technical capacities and raise awareness on the importance and values of peat swamp forest and biodiversity.

### CHEMICALS

Significant impact has been achieved towards Malaysia's compliance with MP obligations through the capacity development assistance UNDP is providing with MLF funding. Institutional strengthening support has made possible national coordination of ozone-related initiatives and relevant policy development. Furthermore, technical assistance is being provided to install alternatives and phase-out all remaining non-QPS uses of methyl bromide, while the aerosol sector benefits from an umbrella project with direct impact towards ODS phase-out in small and medium size enterprises. This project will result in completion of ODS phase-out in the aerosol sector for Malaysia.



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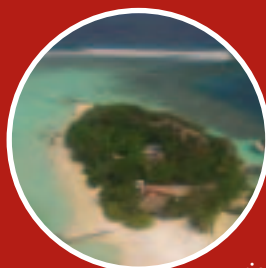
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<sup>3</sup>MDGR 2005 [http://www.undp.org.my/cms\\_undp/document/MDG7.pdf](http://www.undp.org.my/cms_undp/document/MDG7.pdf); <sup>4</sup>Field, M., "Community Plans for the use of Equator Prize 2002"; UNDP, 2003; UNDP, "Equator Prize 2002 Winners Announced"; UNDP, 2002; [http://www.undp.org/equatorinitiative/secondary/awards\\_winners.htm#five](http://www.undp.org/equatorinitiative/secondary/awards_winners.htm#five) and EquatorNet Newsletter, UNDP, 2002; <http://www.undp.org/equatorinitiative/EquatorNet/malaysiaPage.htm#S2002>.  
<sup>5</sup>[http://www.undp.org.my/undp\\_in\\_malaysia/undp\\_in\\_malaysia\\_prog/energy\\_environment.asp](http://www.undp.org.my/undp_in_malaysia/undp_in_malaysia_prog/energy_environment.asp)



### SPOTLIGHT



#### Alternative energy and GHG reduction in the Maldives

An estimated 80% of the land area of the Maldives archipelago is less than a metre above sea level. Global warming and its harmful effects are of particular concern to the country, as its economic and human survival depends entirely on its environmental assets and tourism; sea level

rise has the potential for eliminating both of these sources of livelihoods. The Maldives is therefore seeking new ways to reduce its near total dependence on imported diesel fuel oil and introducing greater use of renewable energy (RE) sources.

A GEF-supported project of US\$ 764,000 and additional co-financing of US\$ 2 million assisted the Government to develop a comprehensive programme of RE technologies in the Maldives. The ultimate goal of the project is to reduce global GHG emissions from energy production activities by increasing the use of RE, and was designed to support the strategies of the Maldives' 6th National Development Plan. The project will assess, develop and implement potential RE technologies for both electricity and non-electricity applications in the Maldives, with a draft energy policy emerging as a result. Specific applications include: solar photovoltaic and wind power systems used in hybrid systems with diesel generators; landfill gas recovery and utilization; passive solar technology in water heating, fish and crop drying, seawater desalination; and the possible introduction of technology that can use biogas from food waste for cooking or electricity production. Advocacy and awareness-raising programmes will also be introduced to illustrate the potential of RE resources and its advantages.

The social rewards of RE can be far-reaching, both globally and locally in the Maldives. Electricity can be provided to outlying islands for more hours a day than is currently available, thereby improving living standards and simultaneously reducing CO2 emissions.

# CLIMATE CHANGE

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$10,370,210
<b>Total UNDP and Co-Finance:</b>	\$999,654
<b>Total MPU and Bilateral:</b>	\$115,000
<b>Total:</b>	\$11,484,864

**Cumulative Total ODS Phased-Out:** 3.5 ODP tonnes



“Apart from the high economic dependence on environmental assets, the very existence of the Maldives itself is dependent on a healthy environment.... Maldives is one of the few nations that is faced with a very real threat of being destroyed by impacts of climate change. UNDP is assisting the country to prepare for and adapt to impacts of climate change and management of other natural disasters. At the strategic planning level UNDP will play a key role in integrating MDGs into the 7th National Development Plan.”



## PORTFOLIO

**Patrice Coeur-Bizot, Resident Representative**

### FSSD\*

UNDP is assisting the Maldives to address socio-economic disparities between the capital and the outer islands. Some projects are tailored towards improving the technical and human resources capacity by identifying country-level priorities for capacity building in addressing global environmental issues and national sustainable development.

### ENERGY

UNDP is assisting the Maldives in developing well-informed policy choices which direct and guide selection, adoption, implementation and use of sustainable technologies that will assist the country address concerns related to climate change. An example to reduce GHG emissions from fossil fuel is the removal of major barriers to the development and application of renewable energy-based systems that can replace part of the fossil fuel use in the Maldives.

### BIODIVERSITY

Integrating biodiversity conservation and sustainable use is a major area where UNDP is assisting the Maldives. The Atoll Ecosystem Conservation Project at Baa Atoll aims to mainstream biodiversity conservation objectives into sectoral policies and programs, conserve biodiversity by establishing protected areas, and relieve livelihood-related pressure on biodiversity by enabling local people to pursue more sustainable, alternative livelihoods.

### CHEMICALS

UNDP is assisting Maldives in its efforts to achieve compliance with the Montreal Protocol through the implementation of an awareness and incentive programme as part of the country's refrigerant management plan.

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## MONGOLIA



### Progress Towards Environmental Sustainability

MDG7

Some of the most pressing environmental problems in Mongolia include land degradation, air pollution, low energy efficiency, deforestation, and decreasing biodiversity. According to the Ministry of Nature and Environment, 78% of Mongolia's pasture land is degraded and another 20% is under threat of degradation. Several factors have led to such vast land degradation, including overgrazing in areas close to markets and water points due to failure to manage and maintain deep-water wells; mining operations, especially gold mining, coupled with lack of land rehabilitation; and infestations with grasshoppers and Brandt's Voles.

Air pollution is an increasingly serious problem, especially in Ulaanbaatar and several other urban centers. There is a high concentration of noxious pollutants that has increased since 1994 and exceeds safety standards. Main sources of air pollution include inefficient stoves, motor vehicles, and thermo-power plants. The Ger communities are not connected to central or district heating systems, leading them to use burning wood and coal and waste to generate heat, which in effect leads to high levels of natural resource consumption.

Mongolia has one of the highest carbon dioxide emission rates per capita in Asia. Consumption of low-grade coal, low-efficiency heating systems, lack of proper insulation in buildings, and overall lack of incentives to conserve energy use are among significant factors contributing to air pollution in Mongolia.

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$31,239,572
<b>Total UNDP and Co-Finance:</b>	\$7,816,449
<b>Total MPU and Bilateral:</b>	\$108,600
<b>Total:</b>	\$39,164,621

**Cumulative Total ODS Phased-Out:** 5.6 ODP tonnes

Important steps have been taken in order to integrate environmental considerations into Mongolia's national development policies and plans. The National Council on Sustainable Development was established in 1997. Parliament has passed over 20 laws on conservation, and several environmental conventions have been signed and ratified. While this has allowed for the establishment of a solid legal basis for environmental protection in the country, implementation has been weak, due to competing interests in the society and the economy and lack of environmental awareness.<sup>1</sup>

## SPOTLIGHT



### Innovative Housing Construction Cuts GHG<sup>2</sup>

Located on mountains and plateaux, Mongolia is one of the world's highest countries with an average elevation of 1,580 metres. At this elevation, northern Mongolia suffers from harsh winters and cool autumn and spring seasons. Heating costs alone can sap 50% of the state's annual budget and a significant portion of household income. Even worse, the heavy reliance on wood and brown coals cause increased air and land pollution that significantly impacts public health.

Innovative, yet often regarded with scepticism at its first inception in the early 1990s, straw bale house (SBH) technology soon became an environmentally-friendly alternative that is being readily adopted by many households. Begun in March 2002, a UNDP demonstration project, co-funded with US\$ 750,000 from GEF and US\$ 1.08 million from the Norwegian Government in co-financing, provided technical and financial support for building super-insulated SBHs, or to improve existing homes. This practical and effective solution relies on recycled straw remnants from crop harvesting in autumn. In the past, demonstrating positive uses of SBH was crucial in dispelling previous negative images portraying them as fire- and rodent-prone and humidity-friendly. Showing that properly constructed SBHs can be energy efficient, comfortable, durable and warm helped ensure the project's success.

Significant savings, public awareness campaigns, and demonstration activities showed SBH to be a viable alternative to wood-burning methods for heating. Activities surrounding the project included a training session on energy efficiency for 40 journalists from 18 different media organisations, and an exhibition on how to build an energy efficient house involving 16 companies and 18,000 visitors. The project's research into energy efficiency revealed fuel savings of 50-70 % and a notable reduction in GHG. Another impact of the project has been to enable many poor and low-income families to spend less time and money on fuel and more time on quality education.



Mongolia's arid climate allows for slow environmental regeneration. Also, a lack of strong environmental governance provides challenges towards compliance with international agreements.<sup>3</sup> UNDP Mongolia promotes a balance between environmental protection and development.<sup>4</sup> As the demand for water by a growing population increases, ensuring a "win-win" solution for reducing poverty while increasing access to safe water and basic sanitation, pose certain challenges. In order to aid the decision-makers with the policy reference material for planning, UNDP undertook the joint study together with WHO and UNICEF. The study conducted a multi-sectoral, rapid assessment on the access to water and sanitation services by low income, vulnerable and marginalized communities.



**Pratibha Mehta, Resident Representative**

## PORTFOLIO

### FSSD\*

The Mongolian Action Programme for the 21st century is Mongolia's response to Agenda 21. This programme will strengthen the national capacity to incorporate sustainable development concepts, particularly environmental concerns into national economic planning and development. The Television Trust for the Environment project, funded in partnerships with the Netherlands and Norway, aims at promoting public awareness to change people's attitude and behaviour toward sustainable natural resources management and environmental protection by broadcasting social, economic and environmental issues with real learning experiences from around the world.

### ENERGY

UNDP's assistance in partnership with Norway and Canada, focus on reducing GHG emissions that result from burning coal and wood for heating in Mongolia, by removing technical and financial barriers and promoting the widespread adoption of energy-efficient technologies in the housing sector. An example is a project with the objective of enhancing the well-being of women, children, and the unemployed by supporting the introduction of energy-efficient buildings and renewable energy as the entry point for the provision of cost-effective social service infrastructure.

### LAND

Addressing sustainable land management is a priority in Mongolia. The Netherlands and UNDP are supporting a programme to increase the welfare of herding families through the sustainable management of Mongolian grasslands. The main mechanism to achieve this goal is to strengthen and formalize existing customary herder community institutions, and to strengthen linkages between them and formal governance structures and the private sector.

### BIODIVERSITY

Six ongoing projects in Mongolia focus on promoting and ensuring long-term conservation and sustainable use of unique biodiversity in protected areas and buffer zones such as the Eastern Steppe grasslands, Altai-Sayan region, and the Great Gobi ecosystem. They aim to achieve this by integrating biodiversity conservation objectives into sustainable natural resource use policy, programs and practices and linking traditional protected area management to the landscape around each area, including cross-border cooperation.

### CHEMICALS

By implementing a recovery and recycling project as part of the refrigerant management plan, UNDP is assisting Mongolia under its Montreal Protocol compliance framework. The project provides equipment, training, technical assistance and the means by which to establish an effective national monitoring and enforcement system.

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### PARTNERS

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<sup>1</sup>MDGR 2004 [http://mirror.undp.org/mongolia/publications/NMDGR\\_Mongolia\\_eng.pdf](http://mirror.undp.org/mongolia/publications/NMDGR_Mongolia_eng.pdf); <sup>2</sup>UNDP Mongolia homepage: <http://www.undp.mn/index.php?name=News&file=article&sid=48>; UNDP Mongolia Brief, 'Good Practice: Straw Bales Make Houses Warmer in Mongolia' and GEF Online database: <http://www.gefonline.org/projectDetails.cfm?projID=22>; <sup>3</sup>[http://www.undg.org/documents/3633-Mongolia\\_UNDAF\\_\\_2002-2006\\_.pdf](http://www.undg.org/documents/3633-Mongolia_UNDAF__2002-2006_.pdf) from UNDAF pg. 28; <sup>4</sup><http://www.undp.mn/modules.php?name=Content&pa=showpage&pid=34#1>; \*Frameworks and Strategies for Sustainable Development

### SPOTLIGHT



#### Community Capacity-building Creates Sustainable Access to Clean Water<sup>1</sup>

Most areas of Myanmar lack access to a year-round supply of clean drinking and domestic water, due to distance, the dry season, or pollution. Water quality is generally not tested or assured, lead to widespread water-borne. In addition, sanitation awareness is generally low, and hygienic latrines are not common. An estimated 57% of the population lack access to sanitation facilities, and 40% lack access to safe drinking water.

Two projects under UNDP's Human Development Initiative Programme (HDI) in Myanmar are supporting access to clean water supply and sanitation facilities for rural communities. These two projects follow an integrated, multi-sectoral community development approach, emphasising the use of participatory methodologies for social learning, with the objective of building the social capital of local communities. The projects aim to enhance the capacity of the poor through self-help groups and community organisations to help improve their social and economic status. Strong emphasis is given to training programmes and linking the community organisations and self-help groups to local support networks.

To date, the two projects have enabled the communities to help themselves in the identification of potential water sources and participatory assistance for the provision of safe drinking water year-round. The projects have trained the communities in the operation and maintenance of the water system, taught the benefits of sanitation and a clean water supply, and the testing of water quality for human consumption to prevent serious water-borne disease. The projects are well on their way to meeting their objective of leaving these communities a legacy of self-help human capacities that will last beyond the material assistance provided to meet their immediate basic needs.



### WATER QUICK FACTS

#### CURRENT PORTFOLIO BUDGET

<b>Total UNDP and Co-Finance:</b>	\$647,989
<b>Total:</b>	\$647,989



UNDP Myanmar has been working under a special Earth Board mandate targeted at programmes having grassroots level impact in the areas of primary health, HIV/AIDS, the environment, training and education and food security. Under this Human Development Initiative programme the focus has been on poverty alleviation through a participatory community development approach in selected townships only.<sup>2</sup> Reducing poverty, while improving environmental sustainability in the rural areas with the participation of the grassroots communities is one of the main missions of UNDP in Myanmar.



**Tun Naing, Resident Representative**

## PORTFOLIO

### LAND

The ongoing Myanmar Agricultural Sector Review project mainly identifies the critical factors affecting pro-poor agricultural growth and defines investment needs in order to stimulate broad-based agricultural development in Myanmar. The main objective is to address grassroots community-based activities in an integrated assessment of household living conditions. Both these new initiatives are based upon recognition of the need to obtain more comprehensive information on the various factors influencing the livelihoods and well being of people and communities, particularly the rural poor, in order to identify causal factors and options for measures to address them.

### CHEMICALS

UNDP is assisting Myanmar to strengthen its efforts to meet its Montreal Protocol compliance targets through development of a project that focuses on the formulation of investment components of the national refrigeration management plan.



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<sup>2</sup>Watsan Report to BDP, "UNDP Human Development Initiative in Myanmar: Access to Clean Water and Sanitation Facilities for Rural Communities in Myanmar"; <http://www.mm.undp.org/>





### Progress Towards Environmental Sustainability

MDG7

Environmental sustainability in Nepal faces serious challenges. The urban environment is becoming highly degraded, with high levels of unmanaged solid waste as well as high levels of air and water pollution. Noise pollution is also high and increasing. On the other hand, initiatives in the drinking water and forest sectors indicate that many problems relating to sustainable development can be solved or at least their impacts reduced. Policies related to protected areas and buffer zone management, for example, are in place. An Environment Protection Act, which, among others, fulfills the obligations outlined under the Montreal Protocol, has been implemented. Decentralization initiatives taken by the government are also expected to contribute to the reduction in the loss of environmental resources.

Poverty reduction and employment promotion policies, however, remain relatively unarticulated. Existing laws related to environmental resources are generally not strictly and often discriminatorily enforced. Private use of common resources has been on the rise over the last two decades. Such privatization has become the prime locale of political as well as petty corruption. While successes in the regeneration of community forests and, to a certain extent, the sustainability of drinking water facilities are widely linked to intensified local stake-holding, similar policy initiatives have not been taken with respect to other environmental resources.

Access to safe drinking water in Nepal is a great concern. Piped drinking water is unsafe in many, if not most, locations almost throughout the year. Contamination at source, at water collection points, in water collection jars, and in locations of storage within households appears to be common. Consequently, while in urban areas a significant proportion of households boil and/or filter water before drinking it, in rural areas the incidence of water-borne diseases is very high.

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$22,650,643
<b>Total UNDP and Co-Finance:</b>	\$8,572,035
<b>Total MPU and Bilateral:</b>	\$86,389
<b>Total:</b>	\$31,309,067

**Cumulative Total ODS Phased-Out:** 17.4 ODP tonnes

In order to achieve the MDG 7 water target, Nepal needs to ensure the engagement of local governments in particular. They must continue to play a key role in responding to community demands for drinking water facilities, in sustained institutional strengthening of user groups in rural areas, and in supporting user groups to generate financial, cultural and political resources locally for the repair and maintenance of water facilities.<sup>1</sup>

## SPOTLIGHT



### Technology Transfer Replaces Kerosene Lamps<sup>2</sup>

Using Kerosene for lighting is a health risk, as kerosene fumes pollute the air. The World Bank estimates that 780 million women and children breathing kerosene fumes inhale the equivalent of smoke from 2 packs of cigarettes a day.

In Nepal, the Village Development Programme launched by the Local Governance Programme, with support from UNDP and the local authority, has established Community Organisations in Pauthak VDC ward no. 5 and 6 of the remote Tehrathum district. Under its technology transfer component, the programme has supported the provision of training on new technologies to members of Community Organizations at Human Resource Development Centres in the district.

As a result, the community has been able to generate electricity by establishing a peltric set, a productive investment from a seed grant. The total estimated cost of the project was US\$ 3,500, of which the Community Organizations bore 44%, and the Government (through an ADB grant) 24%. To date a total of 16 households have benefited from the project. The project was carried out as a joint venture between two female and one male Community Organization.

What has happened is a miracle made possible through the transfer of technology. The ward has seen a huge positive change after the formation of the Community Organisations. The women of the ward now no longer light the small kerosene lamps known as tukis. As a result, the children now study under 40-watt electric lamps, much brighter than the tukis, and the men no longer worry about the price of kerosene that at times rises to US\$ 0.32 per litre. Following the success of this endeavour, other wards in the district are trying to do the same.



UNDP assistance to Nepal formulates pro-poor development policies and frameworks for sustainable development by ensuring environmental protection measures are strictly applied. At the community level, support has largely enhanced the capacity of the local communities to self-organize.<sup>3</sup> While UNDP helps the Government formulate policy framework that is good for development and the environment, the most urgent need in the current complex country situation is for actions that provide energy and promote environment at the level of individual communities. These actions must favour women, ethnic and other disadvantage groups. UNDP is providing practical solutions on the ground.

**Matthew Kahane, Resident Representative**

## PORTFOLIO

### FSSD\*

The Government of Nepal with the assistance of UNDP is developing a number of sector specific strategies that will lead to a comprehensive integrated sustainable development strategy for the country.

### ENERGY

UNDP is supporting several projects in Nepal to strengthen the national policy frameworks on decentralized rural energy development, to further build on the strength of the community to manage rural energy services, and to develop alternative modes of financing and productive uses of renewable energy to remove barriers of renewable energy promotion.

### BIODIVERSITY

UNDP is focusing its assistance in Nepal mainly on conserving biodiversity of actual and potential value and to preserve globally important habitats and species by enhancing the livelihood of surrounding communities who largely depend on natural resources and through developing strategic planning frameworks for park management. Also, the programmes intend to empower the local community to be able to develop and manage tourism in a sustainable manner for their own economic, social, cultural and environmental benefits.

### CHEMICALS

MLF funding has made possible the provision of UNDP's assistance to Nepal in the refrigeration sector. Tools are being supplied to national enterprises to apply good management practices in refrigeration servicing. Additionally the project aims to pilot retrofitting of refrigeration equipment and establish an effective national monitoring system that is expected to facilitate the future enforcement initiatives of the Government.



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### PARTNERS

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## PAKISTAN



### MDG7

#### Progress Towards Environmental Sustainability

Pakistan has successfully developed policies and programmes for environmentally sustainable development through wide-ranging national consultations spanning the Government and civil society, which led to the passing of the Pakistan Environmental Protection Act. This has led to building the capacity of environmental protection agencies, engaging the media, NGOs and grassroots institutions in environmental causes and investing in formal training in environmental disciplines. Pakistan's National Conservation Strategy (NCS) and the various environmental programmes that were initiated in the 1990s generated awareness, introduced legal and regulatory frameworks, and helped strengthen environmental institutions throughout the country. The NCS also triggered off two-way linkages between conservation and other national strategies and plans.

At the same time, however, Pakistan has been experiencing years of decline in its biophysical environment. Water availability has declined from 5,300 cubic meters per capita in 1951 to a borderline of 1,200 today, which is barely above 1000 m3 per capita, the indicator of water scarcity. It is estimated that about 38% of Pakistan's irrigated land is waterlogged, 14% is saline, and the application of agricultural chemicals has increased by a factor of almost 10 since 1980. Air pollution is increasing as a result of industrialization and seriously affects several cities. Over-fishing and polluted waters are reducing the productivity of the marine and inshore fisheries.

The situation is precarious, in particular, for mangroves in the coastal zone and certain aquatic wildlife, such as the Indus freshwater dolphin. All of these activities are contributing to the destruction of habitats and, more generally, to a loss of biodiversity.

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$43,655,700
<b>Total UNDP and Co-Finance:</b>	\$5,131,281
<b>Total MPU and Bilateral:</b>	\$407,133
<b>Total:</b>	\$49,194,114

**Cumulative Total ODS Phased-Out:** 18.6 ODP tonnes

Pakistan is taking serious steps, however, to achieve MDG 7 target 10 for access to safe drinking water. Plans are underway to extend the coverage of clean drinking water from 63% in 2001-02 to 70% in 2005-06 and sanitation from 40% to 55% in the same period. It is targeted to provide 93% of population with access to clean drinking water by 2015 and 90% of the population with access to sanitation.<sup>1</sup>

## SPOTLIGHT



### Fuel-Efficient Smokeless Stoves Bring Health and Environmental Benefits<sup>2</sup>

Pakistan's largest forest reserve, the Changa Manga, is surrounded by 55 villages, putting the protected area's natural resources under pressure. The villagers are dependent upon firewood for cooking and there is a high rate of woodcutting, which is either used for firewood or sold to generate income. Smoke and soot from traditional stoves coat women's kitchens and hands, causing a variety of illnesses and trauma related to smoke inhalation.

To reduce women's dependence on firewood, and improve their health and living conditions, a project funded by the GEF Small Grants Programme encouraged widespread the use of fuel-efficient smokeless stoves. Implemented by the Escorts Foundation in two phases between 1995-2002, SGP provided grants of \$7,500 (1995) and \$32,698 (1999). Village leaders and others were consulted on how to train people to construct and use the stoves. Female volunteers took home stove construction kits and became responsible for motivating others to use the stoves, and for evaluating and monitoring post-construction use of the stoves.

11,728 stoves have been constructed to date. As a result many families now buy 50% less wood, resulting in income saved to meet other needs. Additionally illegal woodcutting in the reserve and indoor air pollution levels have decreased, while kitchen hygiene has improved. The project has provided employment opportunities for women, lifting their social status in the villages. The project also benefits the global environment through the significant reduction of GHG emissions from fuelwood burning.

The project's focus on strengthening the capacity of local women has enabled them to take action to improve their and their families' well-being. The Escorts Foundation is now hosting sessions for other NGOs wanting to support similar projects.

Pakistan's environmental problems are grouped into two broad categories with varying degree of impacts. The first, arising primarily from a combination of poverty and population growth, leading to the over-exploitation of natural resource capital, and the second, emanating from the largely unplanned increase in industrialization and urbanization, leading to the pollution of water, air and land. UNDP Pakistan provides the initiative and assistance in project implementation. Also, UNDP provides support in planning, development and monitoring, without creating a dependency on this support system thus independently creating a national capacity to handle projects of local and global significance.<sup>3</sup>



**Haoliang Xu, Resident Representative**

## PORTFOLIO

### FSSD\*

Three strategic initiatives are underway to identify priorities and needs for capacity development to address global environmental management requirements, to support environmental sustainability and poverty reduction in the context of economic growth, and to contribute to sustainable development in Pakistan through bringing about attitudinal and behavioural changes in students in favour of environmental conservation.

### WATER

Integrated Water Resources Management becomes essential when scarce water resources get polluted by unhealthy sanitation practices. UNDP's support, mainly through the Kasur Tanneries project, intends to contain and reduce the environmental deterioration caused by tannery waste; to improve the tanners existing inadequate technical and managerial skills, to promote environmental awareness amongst people, and to build and strengthen institutional capacities and regulatory measures

### ENERGY

Pakistan has taken serious steps towards the provision of access to sustainable energy resources. Several of UNDP projects are focusing on assisting communities to actively participate in conservation and sustainable management of forest resources, and to help reduce CO2 emissions; promoting the commercialization of wind power in Pakistan; and reducing at-source emissions of greenhouse gases and other pollutants by improving fuel efficiency for transport vehicles.

### LAND

UNDP's support under Sustainable Land Management and Combating Desertification is undertaking an in-depth analysis of causes and effects of land degradation in Pakistan.

### BIODIVERSITY

With a number of partner donor countries and international NGOs, UNDP through GEF resources is assisting Pakistan in enhancing conservation and sustainable use of biodiversity resources. Two projects in particular promote the conservation of freshwater and marine wetlands and the associated globally important biodiversity of the country, in addition to empowering, organizing the capacity of local communities to conserve biodiversity in the Mountain Area Conservancy project.

### CHEMICALS

UNDP supports Pakistan in its efforts to meet global environment obligations through MLF and GEF funded programmes. Under the Montreal Protocol, assistance is provided towards strengthening institutional capacity so that national policies and programming are effectively managed. Under the Stockholm Convention, UNDP is assisting with an enabling activity that establishes the basis for integrated efforts in managing POPs through development of a National Implementation Plan.

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### PARTNERS

#### Some of our Partners working with UNDP and the Government in Pakistan

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RNE	IUCN	
JICA	DFIC	

<sup>1</sup>MDGR 2004 [http://www.undg.org/documents/5593-Pakistan\\_MDG\\_Report.doc](http://www.undg.org/documents/5593-Pakistan_MDG_Report.doc); <sup>2</sup>GEF SGP; <sup>3</sup>Responding to Climate Change, Generating Community Benefits, 2003;

<http://sgp.undp.org/download/SGPCC.pdf> and SGP Online database: <http://sgp.undp.org/index.cfm?Module=Projects&Page=ShowProject&ProjectID=300>;

<sup>4</sup><http://www.un.org.pk/undp/energy/overview.htm>; <sup>5</sup>Frameworks and Strategies for Sustainable Development

## PAPUA NEW GUINEA



### Progress Towards Environmental Sustainability

MDG7

While Papua New Guinea is very rich in natural resources, environmental degradation is occurring at a rapid pace. Despite large-scale deforestation, however, a significant proportion of the total land area is still covered with natural forests. Papua New Guinea's geographical location makes it very vulnerable to natural disasters such as volcanic eruptions, tidal waves, floods caused by monsoon rain, and prolonged dry spells.

The main threat of deforestation comes from clearing for agricultural use. Due to the high population growth rate and a large proportion of the population dependent for their livelihood on subsistence farming, it is expected that forest clearing will increase significantly. Consequently, land clearing will inevitably hit areas that are more vulnerable to erosion of topsoil and the rapid depletion of soil nutrients.

The total renewable water resources available per person in 1999 was around 170 thousand cubic meters - an amount that is considered to be very high compared to most countries in the world. Availability of safe drinking water varies between rural and urban areas; only about 9% of rural households have access to piped water. About 70% of rural households use raw and untreated drinking water from a spring, river, stream, pond, lake or dam. On the other hand, more than 70% of urban households have access to piped water. With regards to sanitation, about 76% of rural households still have a traditional pit toilet. Only 2.5% have their own or a shared flush toilet and 16% have no toilet facility at all. 58% of urban households have their own or a shared flush toilet.

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$10,783,705
<b>Total UNDP and Co-Finance:</b>	\$1,464,129
<b>Total:</b>	\$12,247,834

Environmental data collection in Papua New Guinea is uncoordinated and sporadic. Limited and unreliable information is dispersed to many government departments and other stakeholders. In effect, there is a misleading picture of the environmental situation and trends in Papua New Guinea. In order to improve monitoring of MDG 7 in the future, drastic improvements need to be made in data collection as well as in coordination of environmental monitoring.<sup>1</sup>

## SPOTLIGHT

### Community Conservation Preserves Pristine Ecosystem<sup>2</sup>

The province of Milne Bay contains some of the most biologically diverse coral reefs, mangrove forests and sea grass beds left in the world. While the province's coastal and marine ecosystems remain in relatively pristine condition compared to those elsewhere in the Pacific rim, pressures on the environment are escalating. Communities that are unable to meet their food needs through household agriculture quickly become dependent upon marine resources for subsistence and income generation. Precautionary conservation interventions are needed to prevent the loss of global conservation values and preserve the livelihoods of the residents of Milne Bay.

UNDP is working with national and provincial governments, GEF, Conservation International, and research institutions in Australia through a project to support community-based conservation management demonstrations in 3 designated geographical zones, representing Milne Bay's habitat diversity and the many different social settings in the province. Funding of \$3.2 million was provided by the GEF in 2002, along with additional support from UNDP and the Government, for a 10-year, 2-phase approach to encourage continued, sustainable use of biodiversity in the 3 zones. The first phase focuses on mitigating the threats to marine biodiversity through the establishment of community-managed protected areas, and building government capacities at the provincial and local level with the aim of transferring management to local ownership to sustain the project outcomes. In addition, a programme on sustainable land use and nutrition will provide continued education to, for example, eliminate taboos against the use of sustainable farming technology and economic land use.

The project has already been successful in increasing environmental awareness and knowledge in 22 target communities, and marine conservation and resource management information modules have been integrated into primary and vocational school curricula. Further goals include greater female and youth participation in livelihood activities and application of sustainable land-use techniques.



UNDP has long recognized that environmental conservation is essential for reducing poverty and the first step towards sustainable development. The Papua New Guinea UNDP Environment Programme recognizes the environment-poverty nexus and incorporates livelihood approach in its environment projects. This is evident with both the Community-based marine conservation project and the SGP supported Kimbe Bay marine conservation projects. Community participation in decision making has made it possible to set aside their reef and marine resource areas under marine protected areas, at the same time earning an income from the dive-tourist activities.

**Jacqueline Badcock, Resident Representative**

## PORTFOLIO

### FSSD\*

UNDP is supporting the Government to effectively address environmental mainstreaming through the National Capacity Self Assessment aiming to conduct an assessment to strengthen links between multilateral environmental agreements and the national level action plans.

### ENERGY

UNDP is assisting Papua New Guinea (PNG) to address climate change issues conducting needs assessment and analysis of the critical priority areas of UNCCC implementation in the country.

### LAND

The Remote Sensing Land Use Initiative is aimed at providing open access for the people of Papua New Guinea to information about the status of land use in the country. It will result in the production of spatial accounts of the land-use patterns across the country, thereby equipping those managing land assets with reliable data on which to base their decisions and activities.

### BIODIVERSITY

UNDP in partnership with the PNG Government, GEF, Conservation International, Japanese Human Development Trust Fund, AusAid and a range of other partners is implementing the largest GEF-funded biodiversity project in the South Pacific in the tropical marine area of approximately 46,800 sq. km in Milne Bay Province. The project aims to conserve marine biodiversity by integrating conservation objectives into marine fisheries, eco-tourism and human security development strategies and programmes.



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### PARTNERS

**Some of our Partners working with UNDP and the Government in Papua New Guinea**

EU  
Japanese Human Development Trust Fund  
AusAid  
Germany Development Services  
Conservation International

## PHILIPPINES



### Progress Towards Environmental Sustainability

MDG7

Widespread poverty in the Philippines is largely attributed to the mismanagement of the country's natural resources. Latest environment indicators rate the various aspects of environmental sustainability in the Philippines as either poor or low. Overall, the ability of the major ecosystems to provide and maintain a regular stream of economic goods and ecological services has been significantly constrained by declining stocks and reduced coverage and quality of environmental services.

Total forest cover is about 7.2 million hectares or 24% of the Philippines' total surface area. This reflects an increase of 11% between 1988 and 2004, or the equivalent of 6.5 million hectares. About 88% of reforestation in 2003 was undertaken by the Government and about 12% by the nongovernmental sector.

Loss of biodiversity has primarily been caused by logging, clearing of forest cover for agriculture and settlements, hunting for food and wildlife trade, pollution of coastal waters and over-extraction of biodiversity resources. About 50 national parks have diminished biological importance due to habitat and ecosystem degradation. About 50% of the 63 national parks lost their biological value in 1992 due to various levels of degradation.

Despite high average rainfall, the Philippines is estimated to have the second to lowest per capita freshwater rates in Asia as of 2000.

This is due to over-extraction of groundwater, water pollution, denuded forests and watersheds, and, occasionally, the El Nino phenomenon. Solid waste generation in Metro Manila is estimated at 5,345 tons per day, which is expected to double by 2010. Only about 65-75% of total waste generated in Metro Manila is collected and about 13% recycled. The 25-35% of uncollected waste is disposed of improperly, especially in creeks, thereby resulting in health problems and flooding. There is therefore an urgent need to properly manage the country's natural resources, to progress towards achieving MDG 7, and to protect the environment to improve the present quality of life as well as that of future generations.<sup>1</sup>

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$64,441,264
<b>Total UNDP and Co-Finance:</b>	\$2,659,495
<b>Total MPU and Bilateral:</b>	\$515,588
<b>Total:</b>	\$67,616,347

**Cumulative Total ODS Phased-Out:** 755.0 ODP tonnes

## SPOTLIGHT



### Demonstrating The Viability Of Non-Combustion Technologies For Destroying POPs<sup>2</sup>

Persistent organic pollutants, or POPs, are chemicals such as pesticides, industrial chemicals, and unwanted by-products of industrial processes or combustion. These chemical substances circulate globally, and can cause cancer, damage people's immune systems, and tarnish species and ecosystems, both adjacent to and distant from their emission source. The emerging picture indicates that those who are most affected by chemicals are generally the most vulnerable and marginalized groups – the urban and rural poor, particularly women and children. The Stockholm Convention is a global treaty adopted in

2001 to protect human health and the environment from POPs. At its core, the Convention seeks to assist developing countries in building the technical capacity to properly destroy obsolete stocks of POPs and remediate POPs-contaminated sites, and emphasizes the involvement of civil society in the selection of appropriate technologies.

UNDP-GEF is currently assisting countries to reduce or eliminate the release of POPs into the global environment and meet Stockholm Convention requirements. The Philippines is one of four countries selected to participate in the development of the Global POPs Non-Combustion Destruction Programme that aims to demonstrate the viability of available non-combustion technologies for use in the destruction of obsolete POPs stockpiles. The Philippines programme will have three key objectives: to demonstrate the viability of available non-combustion technologies to destroy POPs; to show how the barriers to the deployment of these technologies may be removed; and to deploy an immediately available and proven non-combustion technology for the destruction of 4,547 tonnes of PCB wastes. This 4-year programme is supported by a GEF grant of US\$ 4.6 million US\$ 7.2 million provided by NGOs, industry partners, UNIDO and the Government of the Philippines. UNDP serves as the implementing agency and UNIDO as the Executing Agency; the project will also cooperate with Environmental Health Fund, an NGO.

Unity and simultaneous action of all players in the environmental protection and management is most evident in UNDP's approach of partnership. The UN Country Team in the Philippines lives out the challenge to tap potentials and coordinate activities of various stakeholders in the achievement of the MDGs. By capitalizing on the principles of dialogue and community building, concrete and localized solutions to manage environmental carrying capacity can lead to sustainability of natural resources, an essential foundation of poverty alleviation efforts.



**Deborah Landey, Resident Representative**

## PORTFOLIO

### FSSD\*

Several initiatives are being undertaken to guide the planning and implementation of interventions for the protection of the environment and the sustainable development of natural resources and to focus on identifying key capacities that will assist in improving the country's ability and capacity to meet and implement multilateral environmental agreements.

### ENERGY

The creation of the Philippine National Authority for CDM and establishing the framework within which it shall operate is one major intervention where UNDP is assisting the Government. In addition, building the capacity to institutionalise the national communication preparation processes is another programme supported by UNDP dealing with climate change to reduce the long-term growth of GHG emissions through removing barriers to commercial utilization of renewable energy power systems.

### LAND

UNDP is initiating an assessment process on formulating a programme with the aim of sustainably conserve and utilize plant genetic resources for food and agriculture through in-situ conservation indigenous crops species and their wild relatives.

### BIODIVERSITY

A number of biodiversity conservation programmes are well underway covering areas ranging from establishing more effective, equitable and sustainable planning, implementation, monitoring and enforcement of biodiversity conservation efforts in the Bohol Marine Triangle, to rehabilitating and protecting the environment through adoption and implementation of appropriate natural resources management policies, and promotion of sustainable livelihood technologies in the Lake Lanao Area.

### CHEMICALS

Building on experience under the MP, UNDP and the Government of the Philippines mobilized GEF funding to implement an enabling activity under the Stockholm Convention to develop a NIP. Additionally, the Philippines is benefiting from a GEF funded, and UNDP implemented Global Programme that aims to demonstrate the viability and removal of barriers that impede the successful implementation of available non-combustion technologies to destroy persistent organic pollutants.

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### PARTNERS

**Some of our Partners working with UNDP and the Government in Philippines**

UNEP USAEP  
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Government of The Netherlands  
USAID  
Government of Japan



### SPOTLIGHT

#### Stakeholders Collaboration Identifies Appropriate Power Supply<sup>1</sup>

Samoa has a relatively high rate of electrification for a small island developing country, as over 95% of the population are concentrated on the two main islands.

By contrast, Apolima Island, one of the outlying islands, is without grid connection, and transportation to the main islands is possible only by small fishing boats. The island has a small community of 93 inhabitants with no paved roads, vehicles, piped water supply, medical facilities or schools. A 20kW diesel generator currently supplies electricity for 5 hours daily in the evenings.

A feasibility study of possible energy supply options was prepared as part of a project undertaken jointly by the Government, the national power utility, UNESCO and UNDP. The objective of the project, which is currently in its first stages, is to replace the island's ailing diesel generator, with a reliable, cost-effective and environmentally sound 24-hour power supply. Several technical options that were presented included upgrading of the existing diesel generator, undersea cable connection to the mainland grid, centralized solar, solar-diesel hybrid and solar home systems.

A stakeholder analysis carried out under the project suggested that, while the villagers would welcome a reliable and environmentally-friendly 24-hour power supply, they are concerned about increased tariffs and a strict disconnection policy for non-payment. The Government also supported the environmentally sound solar option consistent with its social justice policy, despite its reluctance to take on the burden of continuous subsidies, and the solar option was chosen in 2004.

This project illustrates that even in a small island community, many cross-sectoral energy linkages and issues are present, which, when fully taken into consideration in a project, ensure a sustainable outcome. In this case, a collaborative effort helped to identify the best possible option for all concerned.

# ENERGY

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$1,503,500
<b>Total:</b>	\$1,503,500





The great majority of Pacific people live in small and isolated coastal or rural village communities, and remain closely reliant on their local natural resources for subsistence and economic development.<sup>2</sup> For the Pacific people, poverty reduction initiatives equate to improving environment sustainability. Sustaining livelihood offers the hope for all communities to proactively collaborate in the sustainable management of local resources. Improving opportunities for income generation while balancing harmony with the natural world serves Pacific cultures, traditions and customs best. For them, resource management translate to 80 percent managing people and 20 percent managing resources.

**Joyce Yu, Resident Representative**

## PORTFOLIO

### FSSD\*

There are 15 different strategic initiatives in Samoa and the Pacific Islands that are mainly focused on carrying out capacity assessments to address global and local environmental issues; developing plans for implementation of key activities to achieve capacity building needs; and developing mechanisms to conserve and sustainably manage various ecosystems. In addition to capacity building and mainstreaming initiatives that are related to different environmental areas such as biodiversity education, customized wildlife management techniques, monitoring systems and establishment of institutional and legal frameworks.

### ENERGY

To increase access to sustainable energy and reduce GHG emissions, several projects are underway that aim to conduct self assessment and develop specific priority programmes of action for adaptation to climate change, and to provide technical assistance to increase the utilisation of renewable energy technologies.

### CHEMICALS

UNDP is assisting Samoa with implementation of a GEF funded enabling activity project that seeks to develop a National Implementation Plan under the Stockholm Convention.



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### PARTNERS

**Some of our Partners working with UNDP and the Government in Samoa**

Government of New Zealand  
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<sup>1</sup>Jensen, T, "Sustainable Power Supply on Apolima Island, Samoa", UNDP Samoa; <sup>2</sup><http://www.undp.org.ws/enviro&energy.htm>; \*Frameworks and Strategies for Sustainable Development

## SRI LANKA

### SPOTLIGHT



#### EcoSan: Clean Water and Sanitation for the Poor

Approximately three billion people today lack safe sanitation. Open defecation is widespread in South Asia, which when coupled with poor hygiene, a high water table and the proximity of communal wells to private soak-aways or pit latrines, creates a large risk of highly contaminated wells.

This often results in endemic intestinal worms and diarrhea, young people with polio-infected limbs and annual outbreaks of cholera and dysentery. In the rural lowland of Sri Lanka a community working the tea plantations lacked proper sanitation and shared a small number of toilets that were constantly blocked and extremely unpleasant.

To address this problem, in 2000 a UNDP project called Ecological Sanitation, or “Ecosan,” successfully installed 30 urine-diverting toilets in rural and urban areas of Sri Lanka, in collaboration with the expert organization EcoSolutions. These toilets recycle nutrients by using the human excreta as fertilizer, thus protecting the environment while conserving resources. The toilets promote health and prevent disease by treating the faecal matter in the toilet, rather than flushing it downstream. In the rural lowland community the urine-diverting toilets were met with excitement from the community, which participated in building the toilets and were trained to operate and understand the devices. Five banana trees were also planted, which are thriving on the recycled urine and wash water.



The project has been successful as it provides communities with direct and concrete benefits to their health, quality of life and immediate environment, and involves the local community and families in managing the toilets. UNDP is currently working with resource centers on ecological sanitation in Mexico, Zimbabwe, India and Sweden, and EcoSolutions is continuing its successful work, including a project in India where some 200 toilets were installed.

# WATER

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$6,051,900
<b>Total UNDP and Co-Finance:</b>	\$4,270,660
<b>Total MPU and Bilateral:</b>	\$1,700,864
<b>Total:</b>	\$12,023,424

**Cumulative Total ODS Phased-Out:** 91.0 ODP tonnes



UNDP Sri Lanka recognizes environmental development as a vital component of the path towards sustainability of the country. It acknowledges the intricate linkages between environmental sustainability and poverty reduction. In order to support this, UNDP has given an extensive emphasis in developing the Energy and Environment portfolio according to the priorities and needs of the country, linking closely with the promotion of sustainable livelihoods and ensuring that environmental concerns are addressed in developing and implementing other UNDP and non-UNDP programmes in the country.

**Miguel Bermeo, Resident Representative**

## PORTFOLIO

### FSSD\*

UNDP is assisting Sri Lanka meet its obligations towards international environmental conventions by conducting needs assessment of institutional and human capacities. The National Capacity Self Assessment project aims to identify priorities and needs for capacity development for the conventions on biodiversity, climate change and desertification while the Climate Change Enabling Activity identifies technology needs, capacity building needs and preparation of programs to address climate change issues.

### WATER

The Community Water Initiative (CWI) is developed to pilot, learn and disseminate experiences where communities can take action to meet their needs sustainably. Increasing access and services and identifying solutions to be adapted widely is a major objective that is fulfilled by engaging NGOs and CBOs in the management of local water resources. The CWI provides small grants to NGO/CBO to identify and test low-cost, affordable, and ecologically-sound water supply and sanitation technologies.

### ENERGY

UNDP's assistance focuses on promoting increased utilization of renewable energy sources through private and government sector participation in mini-hydro, wind energy, solar and biomass programs. Ongoing programmes also promote the reduction of greenhouse gas emissions by expanding the use of efficient technologies in the utilization of biomass energy in public and private sectors.

### BIODIVERSITY

Several ongoing biodiversity projects address population increase, poverty and destructive livelihood practices in areas of globally threatened marine turtle nesting sites, and areas of deforestation and illegal encroachments. The concern over invasive alien species (IAS) is addressed by the effort to establish a mechanism needed to significantly reduce economic and ecological damage caused by the introduction and spread of IAS.

### CHEMICALS

Over a period of fourteen years the Government of Sri Lanka has worked closely with UNDP towards enhancing its programme activities under the Montreal Protocol compliance framework. The ODS-using refrigeration, agriculture, aerosols and solvents sectors have benefited through provision of an assistance portfolio comprising in the order of twenty projects. The on-going MB elimination projects seek to assist the country to phase-out MB use in tea production and all remaining horticultural uses, excluding QPS applications. Additionally, an incentive programme for the commercial and industrial end-user refrigeration sectors is being implemented, accompanied by establishment of a national monitoring system.

### CONTACTS

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## THAILAND

### Progress Towards Environmental Sustainability

Thailand has made some progress in protecting biodiversity and reducing carbon dioxide emissions as well as ozone depleting substances. More needs to be done, however, on a range of environmental concerns. Balancing the needs of economic growth and environmental sustainability is one of Thailand's greatest challenges.

Protected areas increased from 12.4% to 17.6% of total land area between 1990 and 2001. In honor of the Royal Golden Jubilee, 5 million rai of conserved area is being reforested over the period 1994 to 2007.

Estimates indicate that CO<sub>2</sub> emission in Thailand has averaged about 2.4 metric tons per capita between 1990 and 2001. Electricity production, transport and industry sectors emit about 92% of total CO<sub>2</sub> while the remainder is from residential, commercial, agriculture and construction activities. The proportion of the population cooking with charcoal and fuel wood dropped from 66% to 31% between 1990 and 2002. Electric and gas stove cooking increased proportionally. Many households in the Northeast still use wood and charcoal fuel because it is more accessible and affordable than other sources of energy.

Thailand has high levels of access to safe drinking water as well as sanitation facilities. These MDG targets have therefore been achieved. The quality of water and facilities, however, still requires attention. The proportion of the population having access to safe drinking water increased from 80% to 93% from 1990 to 2000, with improvement seen in both urban and rural areas. The increase in access to safe drinking water was more prominent in rural areas rising 76% to 91% over the decade. The regional disparities that previously existed have been effectively closed.

In general, slum dwellers have secure housing tenure, but many do not have secure land tenure. The National Housing Authority estimates that about two thirds of slum households in Bangkok and its vicinity have an income over 9,000 Baht per month and therefore may have capacity to find housing solutions outside slum areas.<sup>1</sup>



## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$52,126,000
<b>Total UNDP and Co-Finance:</b>	\$566,706
<b>Total:</b>	\$52,692,706

**Cumulative Total ODS Phased-Out:** 2,220.7 ODP tonnes

## SPOTLIGHT

### Energy efficient stoves and kilns promote sustainable agriculture and provide local economic benefits<sup>2</sup>

Forest destruction is a problem in Thailand, where 75% of the country's original forests have already been lost. In the Tambol Mae Tha area, encompassing seven villages, firewood is used for cooking and charcoal is produced from wood collected in local forests. As a result, firewood is becoming increasingly scarce and costly and women have to travel further to collect. This is therefore a problem both for forest resources and women's livelihoods.

Together with local communities, The Institute for Sustainable Agriculture Development (ISAD) designed the "Energy efficiency and the promotion of sustainable agriculture" project in the Sunsai district of northern Thailand to improve cooking and charcoal production processes, reduce impacts on the forest and generate local livelihood benefits, particularly for women. The GEF Small Grants Programme provided a grant of \$7,234 during 2000-2001. More efficient terracotta stoves are built by a group of 50 farmers and sold by women who demonstrate their use in the marketplace. They use less wood and cook food faster, and are also used to by women to make and sell snack foods. In addition, the project has introduced fast-growing trees that the community can harvest in a sustainable manner, and established a new method of making charcoal using airtight steel drums as kilns. This process produces "wood vinegar" as a by-product, which is a natural fertilizer, and is sold for profit by the charcoal producers.

Approximately 400 stoves are being produced each month. There is now less wood collection, protecting the forests and local water supplies, and local incomes have increased through the sale of stoves and other by-products. The project has brought positive local environmental benefits have been gained through the availability of non-organic fertilizer, while the global environment benefits from a reduction in GHG emissions and the planting and harvesting of trees in a sustainable manner.



UNDP helps promote the achievement of MDG 7 and provides the framework for collaboration with concerned government agencies and civil society groups on sustainable environment management in Thailand. It supports Thailand in addressing environmental issues that are inextricably linked to sustainable development and poverty reduction as well as in taking necessary steps toward implementing outcomes of environment-related international agreements.<sup>3</sup> UNDP is a crucial gateway for Thailand in accessing international expertise, policy advice and best practices in the area of environment and energy. Conversely, UNDP can benefit greatly from Thailand's knowledge and development experience which we hope to disseminate to other countries in the region and beyond.



**Joana Merlin-Scholtes, Resident Representative**

## PORTFOLIO

### FSSD\*

Thailand is currently engaged in developing National Sustainable Development strategies at the national and local levels with the aim of mainstreaming environment into other national development strategies.

### ENERGY

Access to alternative sustainable sources of energy is a main objective in Thailand supported by UNDP's assistance. For example, one project focuses on one stop service for Biomass promotion and private cooperation on reduction of risk for the investment on biomass co-generation. Thailand has launched the preparation for the First and Second National Report on the country implementation on climate change.

### BIODIVERSITY

The Wetland Biodiversity project is the first phase of the regional programme on Mekong Wetland Biodiversity. Meanwhile there are 6 preparatory activities being implemented as seeds for future project developments according to the UNDP Thailand Environment Partnership.



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Government of The Netherlands

<sup>1</sup>MDGR 2004 [http://www.undg.org/documents/4581-Thailand\\_MDG\\_Report\\_-\\_English.pdf](http://www.undg.org/documents/4581-Thailand_MDG_Report_-_English.pdf); <sup>2</sup>GEF SGP, 'Responding to Climate Change, Generating Community Benefits': <http://sgp.undp.org/download/SGPCC.pdf>, 2003; SGP Online database: <http://sgp.undp.org/index.cfm?Module=Projects&Page=ShowProject&ProjectID=3432>; <sup>3</sup><http://www.undp.or.th/focusarea/environment/index.html>; \*Frameworks and Strategies for Sustainable Development



### SPOTLIGHT

#### Building Capacity to Accede to Climate Change and Biodiversity Conventions

Timor-Leste is the world's youngest nation; it is also the poorest nation in South-East Asia. As a result of its turbulent recent history, the country has been left with a huge governance and capacity gap. The island of Timor is endowed with rich natural resources, as it lies in the "Wallace Zone", where the Indo-Malaysian and Australasian flora and fauna overlap. It is known to have good quality, rare and possibly unique terrestrial, lake and marine ecosystems, which stem from its unique geological and meteorological conditions. However, these ecosystems are as yet poorly studied and there is very limited baseline information. In addition, the country is prone to floods, landslides and erosion due to inadequate land management practices and uncontrolled deforestation in the recent past.

As part of its nation-building process, Timor-Leste has taken some initial steps to join regional and international communities and networks. UNDP has committed to acting as a driving force throughout this process and will assist the country in managing its environment and sustainable development. Timor-Leste has already acceded to the UN Convention to Combat Desertification and received GEF funding of US\$ 225,000 to complete a National Capacity Self-Assessment (NCSA) to help close the existing governance and capacity gaps. The NCSA process – beginning in July 2004 and running until December 2005 – is part of a larger Environmental Governance Support Programme with four distinct, but inter-linked components, including supporting Timor-Leste's MEA accession process and an inter-ministerial coordination mechanism, and developing systemic tools for coastal zone management.

Together, these initiatives aim to create a sustainable institutional system and process for continuous assessment and improvement of national capacities for sustainable environmental management and ultimately bring Timor-Leste into accession agreement on the remaining Rio Conventions on Biodiversity and Climate Change.



# STRATEGIES

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP and Co-Finance:</b>	\$610,000
<b>Total:</b>	\$610,000



UNDP is working to assist the Government in ensuring environmentally sustainable development of Timor-Leste. The overall objective is to enhance the capacity of the Government to develop and implement environmental governance structures, including policy formulation, legal regulatory frameworks and a co-ordination mechanism.<sup>2</sup> UNDP is exploring how the development partners can assist countries such as Timor-Leste in environmental management, in the areas of biodiversity, climate change and land degradation while also promoting sustainable livelihoods in local communities by addressing the need for economic growth and employment generation.

**Sukehiro Hasegawa, Resident Representative**

## PORTFOLIO

### FSSD\*

NCSA, developed by GoTL/UNDP and supported by GEF is intended to identify capacity gaps for the implementation of Multilateral Environment Agreements and develop strategies to fill the gaps in a country-driven manner. UNDP has also supported TL in launching an Environment Governance Support Programme to enhance the Government capacity to develop and integrate sustainable environment management into country's development agenda.

### ENERGY

Participatory Rural Energy Development Programme, a pilot project supported by UNDP and the UK builds capabilities for planning, implementing, and managing rural energy (RE) systems at the local, district, sub-district, and national level. The programme creates a favourable atmosphere for RE development and supports the GoTL to establish institutions and supporting structures. Also it promotes the adoption and adaptation of RE technologies by local people and entrepreneurs to enhance income for sustainable livelihoods and environmental sustainability.

### LAND

A preparatory assistance programme aids GoTL to formulate a medium size project on Land Degradation which helps the government to manage its land, build capacity, and assist the finalization of its National Action Plan (NAP) to combat desertification and land degradation. The programme mainstreams and harmonizes sustainable land management into NAP, designs strategies, and mobilizes resources for NAP implementation.



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### PARTNERS

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Government of UK

<sup>1</sup>GEF Online database: <http://www.gefonline.org/projectDetails.cfm?projID=2208>; <sup>2</sup>[http://www.undp.east-timor.org/undp/focus\\_areas/energy\\_environment.html](http://www.undp.east-timor.org/undp/focus_areas/energy_environment.html); \*Frameworks and Strategies for Sustainable Development



## VIET NAM



### MDG7

#### Progress Towards Environmental Sustainability

Viet Nam is slowly mainstreaming the principles of sustainable development into the country's policies and programmes. Rapid economic growth, along with growing population and substantial migration has exerted over the last decades enormous pressures over the environmental quality and natural resources of Viet Nam, making environmental sustainability one of the greatest challenges for the achievement of the MDGs. Moreover, Viet Nam is a country prone to natural disasters, particularly typhoons, floods and drought. An average of more than 1 million people need emergency relief each year due to natural calamities. Many of these people are just above the poverty line, and the impact of a flood or typhoon often pushes them back into poverty.

Natural forest cover shrunk from 43% of total land in 1950s to 27% in 1990, and though the forest cover has increased to 35.8% in 2002, the overall quality of forest has decreased due to natural forest destruction and loss of biodiversity associated with the introduction of non-native flora species. In response to this threat, the Government has encouraged the development of the protected areas system. The number of protected areas has increased between 2001 and 2003 from 95, accounting for 6.7% of total land area, to 121 accounting for 7.54%.

In 2002, between 48-56% of the Vietnamese population had access to safe water supply. This national figure, however, does not reflect the urban-rural disparities in the country. While 78% of the urban households are using safe water supply, only 44% of the rural households have access to safe drinking water sources. From 1998 to 2000, Viet Nam increased overall access to safe water by 13% —an average of 4.6% per annum, which is one of the fastest improvement rates in the world.

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$61,192,977
<b>Total UNDP and Co-Finance:</b>	\$4,694,792
<b>Total MPU and Bilateral:</b>	\$787,799
<b>Total:</b>	\$66,675,568

**Cumulative Total ODS Phased-Out:** 282.8 ODP tonnes

To meet the Government's goal of 85% overall safe water coverage by 2010 and 100% coverage by 2020, Viet Nam needs an average growth rate of 3.3% per year from 2000 to 2010 and an average annual growth of 1.5% from 2010 to 2020. Achieving these goals is possible provided the Government maintains access to safe water as a funding priority for the next 20 years.<sup>1</sup>

## SPOTLIGHT



### Energy-efficient Brick Kilns Reduce Local Air Pollution and GHGs<sup>2</sup>

Brick-making is one of the most important industries in Viet Nam, traditionally carried out by family-run businesses in rural areas. In 1998, there were over 300 brick-making enterprises in the country, of which 200 were privately owned and predominantly small-scale, accounting for about 70% of national brick production. However, brick production is one of the most environmentally damaging activities in the construction sector. Most brick kilns tend to be highly inefficient, relying on low-quality coal with a high sulphur content, leading to local air pollution and GHG emissions.

The GEF Small Grants Programme contributed \$32,000 to a project to develop a model of a high efficiency vertical brick kiln in Viet Nam. Working with community leaders, government officials and researchers at the University of Technology, the project studied alternative kiln designs that would have less of an environmental impact, while still affordable for small and rural businesses. Local brickmakers were heavily involved in testing different kiln designs, finally settling on a vertical shaft brick kiln.

By the end of 2003, 21 vertical kilns had been installed, six in Hung Yen Province and 15 in Hai Duong Province, with more in the pipeline. The systems have proven to be up to 50% more efficient in their use of coal than the traditional model – at a fraction of the cost. The increased energy efficiency helps reduce local air pollution and GHG emissions. In addition, the new technology has reduced the incidence of broken bricks, saving both time and money for brick producers.

The demonstration of this new technology was so successful that the Government of Viet Nam recently issued a decree that all traditional brick kilns must be phased-out by 2005 in cities and by 2010 in rural areas.



70% of Vietnamese earn their living from the land, making them directly dependent on the quality and availability of natural resources. At the same time, population growth, urbanization and economic expansion are placing increasing pressure on Viet Nam's environment.<sup>3</sup> "Viet Nam is one of the 10 centres of highest biodiversity in the world. Environmental protection and natural resources management are closely related to poverty reduction. The poor rely heavily on natural resources to generate income and for direct consumption. Many rural people in remote uplands and coastal areas face the challenge of degrading natural resources. UNDP is assisting the country in defining local solutions to ensure that resource management strategies are sustainable and empower the poor.



**Jordan Ryan, Resident Representative**

## PORTFOLIO

### FSSD\*

Three initiatives are underway that aim to provide support for formulation and implementation of the national Agenda 21, to identify country level priorities and needs for capacity building to address global environmental issues relating to biodiversity, climate change, and land degradation, and to assist Viet Nam in implementing the National Policy Statement and National Implementation Strategy for Environmental Education.

### ENERGY

To ensure access to sustainable energy resources, UNDP has initiated two projects that aim to determine and develop a comprehensive programme to remove barriers to energy efficiency in the public lighting sector and to determine and develop a programme to reduce the greenhouse gas emissions from small-and medium-sized enterprises.

### BIODIVERSITY

Agriculture is a main source for sustainable livelihood for poor and rural communities in Viet Nam. To ensure access to and sustainable use agro-biodiversity resources, UNDP through GEF funding is supporting an agro-biodiversity project focusing on conserving globally significant agro-biodiversity of six important crop groups in three eco-geographical areas: the northern mountains, the northern mid-lands, and the northwest mountains. The project aims to improve operations capacity at two sites to efficiently and sustainably manage and maintain the areas, and reduce external threats to biodiversity by integrating conservation and development objectives.

### CHEMICALS

Under its Montreal Protocol programme framework, Vietnam works with UNDP in the aerosols and refrigeration sectors. Currently, two projects in the aerosols sector aim at phasing out CFC-12 in the manufacture of perfumes by conversion to hydrocarbon propellants. In the refrigeration sector, assistance is provided through implementation of the refrigeration management plan which encompasses a recovery and recycling programme and establishment of a national monitoring system. Furthermore, having ratified the Stockholm Convention, Vietnam receives support from UNDP to develop a National Implementation Plan that will lay the groundwork for consideration of any future POPs elimination activity in the country.



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## REGIONAL SPOTLIGHTS

### Transfer of Environmentally Sound Technology to Reduce Transboundary Pollution in the Danube River Basin<sup>1</sup>

The Danube River is over 2,857 km long and travels through the heart of central and eastern Europe, eventually draining into the Black Sea through a delta; the second largest natural wetland area in Europe. The UNDP/GEF Pollution Reduction Programme identified 130 major manufacturing enterprises of concern, or 'hot spots' within the Danube River Basin; a significant number of these were contributing to transboundary pollution in the form of nutrients and/or POPs.

The GEF Transfer of Environmentally Sound Technologies (TEST) project implemented by UNDP and executed by UNIDO set out to build capacity in existing cleaner production institutions in the five Danubian countries of Bulgaria, Croatia, Romania, Slovakia and Hungary. With a total budget of US\$ 3.19 million and lasting three years, a total of 17 selected pilot enterprises in these countries known to contribute to transboundary pollution in the Danube River Basin and the Black Sea were chosen to apply the TEST procedure. The goal: compliance with environmental norms of the Danube River Protection Convention (DRPC) while at the same time maintaining a competitive edge and adapting to the social consequences of major technology upgrading.

In the 3-year period, the project successfully completed training and knowledge transfer related to capacity building and institutional strengthening at both the level of the selected demonstration enterprises and at the level of the national counterpart institutions (Cleaner Production Centres, Pollution Control Centres, etc). Over 200 Cleaner production options have been implemented in the 17 demonstration enterprises for a total investment of US\$ 1.66 million and resulting in economic and environmental benefits including, US\$ 1.3 million in annual financial savings.

It also provided a highly valuable demonstration to the industrial private sector of how cleaner production and more environmentally sound technologies can be embraced successfully by companies without jeopardising their market positions, and without incurring any significant long-term costs. In fact, the TEST process has demonstrated that CPA and EST can add a significant market-level advantage and can increase productivity and make companies more cost-effective while producing less waste materials.

### Restoring the Dnipro River Basin

Watersheds seldom respect political boundaries. Without co-operation and co-ordination, conservation and pollution prevention undertaken by one country can be quickly undermined by actions on the other side of the border. That was the reality faced by the Dnipro River basin, located in a diverse economic region in three countries. Over the past eighty years, the Dnipro River system has been progressively regulated and degraded with a large number of reservoirs, channels, conduits, ponds, dams and drainage projects. Every year, millions of tonnes of pollution enter the Dnipro River, and ultimately the Black Sea, due to surface runoff from drained land.

To address the short-term challenges facing the Dnipro basin, the Russian Federation, Republic of Belarus, and Ukraine joined with UNDP-GEF to scientifically assess the various threats to the Dnipro, identify their root causes, agree on priority actions, and begin building a multi-national management structure. The long-term goal of the Dnipro River basin project is the creation of an International Dnipro Commission that will allow the countries to jointly manage the river, co-ordinate pollution mitigation, and serve as a conflict resolution forum. GEF, the three Governments and IDRC finance this programme with a budget of US\$ 14.86 million.

The first tangible results of the Dnipro programme were the completion of a Trans-boundary Diagnostic Analysis and a Strategic Action Programme. On a basin-wide scale, a Dnipro regional council was created to include representatives of Dnipro oblasts, government ministries, the project implementation unit and representatives from civil society organizations. Each of these national and regional institutions carries specific responsibilities for research, monitoring and management activities. These institutions overall contribution have been judged to be so effective that the three countries have committed themselves to financing their sustained existence after UNDP-GEF financing ends.

### A Strategic Vision for the Prespa Park<sup>3</sup>

The Prespa region is situated in the Balkan Peninsula, in southeastern Europe, at the borders between Albania, Greece, and the FYR of Macedonia. The area is mountainous, remote and sparsely populated, which has led to limited interaction among the three nations. Following the Declaration of the Prime Ministers of Albania, Greece and the FYR of Macedonia, on the creation of the trans-boundary Prespa Park, the three neighbouring countries were faced with the development of a joint strategy for the preservation of the unique biodiversity and resources and the promotion of sustainable development for the region.

*"The Integrated Ecosystem Management in the Trans-boundary Prespa Park Region Project"* - a \$4.13 million GEF effort with co-financing of \$13.914 supported by UNDP - promotes integrated ecosystem management of the trans-boundary Prespa Park region with the participation of all stakeholders and strengthens cooperation among the three countries. Support from UNDP will help to minimize the impact of intensive agricultural production on the biodiversity, ecosystem and water quality in the Prespa Region. Currently, UNDP is working with local communities and farmers' groups to build agricultural services that will promote rational use of fertilizers and strengthen existing agricultural associations. This will lead to an increase in biodiversity in the lake and surrounding ecosystems, and will help to stabilise livelihoods by reducing the economic and environmental risks associated with production.

The region's biodiversity is being conserved through the promotion of the wise water management in the basin, joint monitoring programmes among the three countries, sustainable utilisation of natural resources and trans-boundary activities for environmental protection and management. The project is also enhancing opportunities for the sustainable economic and social development of local societies and the wise use of natural resources for the benefit of both nature and people.

# BIODIVERSITY



<sup>1</sup>GEF Final Evaluation TEST to Reduce Transboundary Pollution in the Danube River Basin Project Summary: <http://www.gefonline.org/projectDetails.cfm?projID=867>;  
<sup>2</sup>GEF: [http://www.undp.org/gef/undp-gef\\_publications/publications/intlwaters\\_brochure2004.pdf](http://www.undp.org/gef/undp-gef_publications/publications/intlwaters_brochure2004.pdf) Protecting International Waters Sustaining Livelihoods, Restoring the Dnipro River Basin, November 2004, pg. 9; <sup>3</sup>Prespa Park, [http://europeandcis.undp.org/index.cfm?wspc=EnvG\\_Home\\_1\\_BSLM\\_PRESPA](http://europeandcis.undp.org/index.cfm?wspc=EnvG_Home_1_BSLM_PRESPA) GEF online database, <http://www.gefonline.org/projectDetails.cfm?projID=1537> Prespa Park, <http://www.medwet.org/prespa/park/strat.html>



## ALBANIA

### Progress Towards Environmental Sustainability

Over the last ten years, forests in Albania have been exploited and financial resources for good management have been limited. There has been insufficient control over illegal activities such as indiscriminate woodcutting, overgrazing, and occupation of forest and pasture lands. Although a significant decrease in forest damage has been noted after 1997, much of the illegal logging activity has continued to occur and is mainly driven by commercial interests and poverty, especially in the rural areas.

Albania is a country rich in biological diversity. The total surface of the land area protected for biological diversity has significantly increased over the last decade. Although progress has been made, the size of current protected areas remains insufficient to ensure effective conservation of the country's biological diversity. In addition, the biological integrity of existing protected areas has been compromised due to illegal hunting, fishing and wood collection. Monitoring and enforcement is inadequate and comprehensive management plans still do not exist.

The situation regarding drinking water is problematic. Access to drinking water is low, especially in rural areas, and the drinking quality of the water is poor and unsafe. In rural areas, less than 50 % of residents have access to running water and less than 25 % have access to running water inside their dwelling. For the country as a whole, access to running water is 66 % and access to running water inside the dwelling is 50 %.

The overall minimum additional resources that need to be mobilized for the period 2004 through 2015 to achieve certain key MDG targets in Albania total some \$22 billion.<sup>1</sup>



## QUICK FACTS

<b>Total UNDP-GEF and Co-Finance:</b>	\$860,000
<b>Total UNDP and Co-Finance:</b>	\$1,473,457
<b>Total:</b>	\$2,333,457

## SPOTLIGHT



### Solar PVs Pump Water to Rural Areas and Generate Incomes<sup>2</sup>

Albania is undergoing a serious energy crisis due to insufficient investment in power generation and distribution, combined with a major increase in energy demand. Prices have been rising, putting pressure on those with low incomes. At the same time, usage limits are also becoming stricter. This is particularly a problem for the poor, as it denies them access to water for drinking and irrigation of their crops, to sustain their livelihoods.

With a grant from the GEF's Small Grants Programme of \$29,960, in 2002 the Energy Efficiency Center (EEC) was able to carry out a project to test the viability of using solar energy to pump water to two villages. In one village, solar photovoltaics (PVs) were used to pump water for household use, and in another, they were used for agricultural irrigation. The villages had some existing water supply infrastructure that had been put in place by the Catholic Fund for Overseas Development (CAFOD). The project made as much use of this infrastructure as possible to pump water. For example, instead of installing battery systems for storing electricity, it proved to be more cost-effective to construct water reservoirs to deal with peak hours of water consumption. After receiving training from the supplier, members of the EEC installed the water supply systems and then trained villagers to maintain and operate them. In the village where PVs are used for irrigation, the panels were mounted on a farmer's roof and he became responsible for maintaining them. The second village chose to pay someone to take care of maintenance. Installation was followed by an awareness-raising campaign and a survey to assess the impact on villagers' lives.

The villages now have access to drinking water for household use and for irrigation, which increases the farmers' ability to grow crops and generate income.

Albania's developing market economy is putting strong negative pressure on its environment. The country is suffering from unplanned urban expansion, unsustainable consumption, inherited historical pollution, and a weak monitoring program.<sup>3</sup> "In response to these needs, UNDP has been expanding its support in environmental programmes and has doubled its environmental projects during the last two years. This has been done within the overall framework of the Millennium Project recommendation including: projects and proposals that address immediate environmental concerns such as reforestation; "Clean and Green" initiatives; and solid waste management."



## PORTFOLIO

**Anna-Kristina Stjærnerklint, Resident Representative**

### FSSD\*

UNDP and SIDA are supporting efforts to respond to the priorities of the Government in support of the enhancement of local governments' capacity to provide better public services in the area of environmentally related initiatives including public awareness. These efforts are combined to provide temporary employment to unemployed citizens.

GEF is assisting Albania, through the NCSA process, in critically reviewing achievements regarding fulfilling the commitments made to the UNCBD, UNFCCC and UNCCD and focuses on cross-cutting issues and synergies between the Conventions.

### ENERGY

GEF supports efforts to maintain and enhance national capacities to prepare National Communications, to ensure a continuity and improvement of this process, and to meet the country's needs for identification and assessment of climate change friendly technologies.

UNDP is working to support local level management of energy resources and propose ways of improving energy availability through feasibility studies of energy efficiency measures and provide guidance, advice and capacity building in energy planning and efficiency within the local government and communities.

### BIODIVERSITY

The Government of Albania and GEF are working to reinforce the legal, regulatory and institutional conditions and tools required for the conservation of biodiversity under threat in the wetlands and ecosystem sites of Narta, Orikumi, Llogara and Karaburun. At the national level, efforts include identifying and applying innovative tools needed for integrated management.

GEF, KfW, UNDP, and the governments of Greece, Macedonia and Albania are supporting integrated ecosystem management in the trans-boundary region of Prespa Park with the participation of all stakeholders.

### CHEMICALS

In support of the country's objectives under the Stockholm Convention, UNDP, using GEF funding, is working with the Government and national stakeholders to implement an enabling activity that will result in development of a National Implementation Plan for Albania. This project is setting the foundation for further consideration of national initiatives in POPs management.

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Government of Greece  
FYROM

<sup>1</sup>Albania MDGR 2004 <http://intra.undp.org.al/ext/elib/download/?id=659&name=Albania%20National%20MDG%20Report%202004%20%28Albanian%29%2Epdf>; <sup>2</sup>GEF SGP, 'Responding to Climate Change Generating Community Benefits', 2003 and SGP Online database: <http://sgp.undp.org/index.cfm?Module=Projects&Page=ShowProject&ProjectID=5513>;  
<sup>3</sup><http://intra.undp.org.al/ext/elib/download/?id=660&name=CCA%20Albania%202004%2Epdf>; \*Frameworks and Strategies for Sustainable Development

## ARMENIA



### Progress Towards Environmental Sustainability



The period of economic crisis after the declaration of Armenia's independence in 1991, the conflict in Nagorno Karabakh, the instability in the region, and the lack of appropriate capacities and experience precluded the incorporation of environmental concerns into the overall economic development and had a detrimental impact on the ecological situation. By signing the Rio Declaration on Environment and Development, Armenia has committed itself to the goals of Agenda 21. The strategy of the Government of Armenia, with UNDP's assistance, aims to help national institutions and civil society reconcile environmental concerns with the national economic development and poverty reduction goals and policies, in order to make progress on MDG 7 on environmental sustainability.

The geographical nature of Armenia has complicated efforts to increase access to water (Target 10 of MDG 7). Water reserves and sources on the territory are unevenly distributed. The mountainous relief and difficult access to mountainous villages impede water distribution as well.

Challenges to environmental sustainability in Armenia include the continued difficult socio-economic situation in the country, scarce budgets of local self-governance bodies responsible for providing basic services to the population, and weak organizational management of rural communities. However, the establishment of a State Commission on Water Resources in 2001 may enhance environmental sustainability prospects as well as a State programme on combating poverty, which envisions measures aimed at increasing access to household amenities and services for the most vulnerable parts of the population. Increased involvement of the private sector is also seen as a priority. In addition, reconstruction of the water pipe system in the capital, where more than 1/3 of the population is concentrated, will improve access to water and basic sanitation, two major targets of MDG 7.<sup>1</sup>

### QUICK FACTS

<b>Total UNDP-GEF and Co-Finance:</b>	\$14,481,191
<b>Total UNDP and Co-Finance:</b>	\$214,477
<b>Total:</b>	\$14,695,668
<b>Cumulative Total ODS Phased-Out:</b>	52 ODP tonnes

### SPOTLIGHT



#### NCSA Process Gains Rapid Momentum<sup>2</sup>

The National Capacity Self-Assessment (NCSA) process provides a unique opportunity for a country to carry out a comprehensive evaluation of their national capacity to fulfil their commitments under global environmental conventions in a coordinated and synergistic manner. Armenia has conducted studies and developed national reports and action plans under the three Rio Conventions, which provide the NCSA study with a solid foundation upon which to build the country's capacity assessment.

In 2003, Armenia was among the first countries to begin the NCSA process with a financial contribution from the GEF of US\$ 197,000. The highly participatory self-assessment process brought together many key players: government agencies, academia, NGOs and the private sector. Each group identified critical capacity needs in order to fulfil Armenia's obligations under the conventions. The national capacity needs were assessed and prioritised based on the findings and recommendations of the assessment processes. The Government of Armenia fully supported the NCSA by decree and identified short, medium and long-term capacity building measures for implementation of the conventions.

UNDP-GEF support to early implementation of the NCSA included wide distribution of CD-ROMs containing convention documents, national reports and web-links, enabling the campaign to very rapidly reach a wide audience. The project outcomes and Framework Action Plan were presented to the National Assembly deputies in 2004. Armenia is now one step ahead, having embraced the process early on, and can now move forward and implement some of recommendations identified through the process. In particular, advancements have been made in forging stronger partnerships with NGOs and CBOs, such as the Forest Coalition and the Yerevan City Public Environmental Council. The development of a monitoring and evaluation mechanism was invaluable as it catalysed the process to identify the main bottlenecks and undertook measures to improve capacity to capture environmental statistics and efficiently manage information.

UNDP Armenia's Energy and Environment Programme supports the Government in the field of integration of economic, ecological, and social policies for sustainable development, as well as in creating legal and regulatory structures to stimulate the observance of laws, norms, and rules on environmental protection, assists in the implementation of the principles of environmental conventions, and works with the GEF on the implementation of global mandates and national strategies.<sup>3</sup> "At this stage in the country's transition, it is critically important to focus on the environmental aspects of economic growth."



**Lise Grande, Resident Representative**

## PORTFOLIO

### FSSD\*

GEF is supporting Armenia's NCSA in order to determine the priority needs and a plan of action for developing Armenia's capacity to meet its commitments for global environmental management, with a focus on capacity related needs. UNDP and the OSCE is supporting Albania's Strategic Environmental Assessment, with the objective of improving the national decision-making and planning process.

### WATER

Armenia's long-term objective is to ensure that the quality and quantity of the water throughout the Kura-Aras river system meets the short and long-term requirements for optimum ecosystem function as well as the needs of the communities using the river. This will be achieved with GEF's support.

### ENERGY

UNDP and GEF are working to strengthen and maintain capacity for realization and transfer of technologies required for climate change adaptations. The overall objective is to identify gaps, uncertainties and needs to be undertaken by the SNC.

### BIODIVERSITY

UNDP, FAO and DFID are working to better protect Armenia's biodiversity, especially by strengthening coordination capacities of the Ministry of Agriculture in the implementation of the National Strategy for Sustainable Agricultural Development. GEF is also assisting Armenia in the preparation of its Third National Report on Biodiversity for submission to the Convention on Biological Diversity. This will be done through the preparation of national documents, synthesising biodiversity information and identification of main stakeholders involved.

### CHEMICALS

With GEF funding, UNDP is assisting Armenia in meeting its phase-out obligations under the Montreal Protocol. Ongoing programming targets priority ODS phase-out activities in the refrigeration and aerosol sectors and proposes technical assistance at the institutional and enterprise levels to facilitate achievement of ODS phase-out. In an overarching manner, the project ensures availability of technical assistance to expedite the implementation of the country programme and develop national capacity.

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### PARTNERS

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<sup>1</sup>Armenia MDGR 2004 [http://www.undg.org/documents/2751-Millennium\\_Development\\_Goa.doc](http://www.undg.org/documents/2751-Millennium_Development_Goa.doc); <sup>2</sup>UNDP Armenia Country Office Questionnaire, available at [http://ncsa.undp.org/docs/LESSONS%20LEARNED/NSCA\\_Armeni\\_revised.doc](http://ncsa.undp.org/docs/LESSONS%20LEARNED/NSCA_Armeni_revised.doc); <sup>3</sup><http://www.undp.am/?page=environment>; \*Frameworks and Strategies for Sustainable Development



## AZERBAIJAN



### Progress Towards Environmental Sustainability

MDG7

The main environmental problems that Azerbaijan currently faces and that impede efforts towards environmental sustainability as outlined in MDG 7 include: ecological problems/pollution left unresolved since the time of the Soviet industrial and agricultural policies, deforestation, which has accelerated in some areas in recent years due to the lack of reliable energy supplies to regions for heating, lack of piped water in rural areas, and poor quality of piped water in urban areas, and pollution of the Caspian sea.

84% of the urban population and only 11% of the rural population have access to piped drinking water. This major disparity reflects a problem of unequal access to safe drinking water, in addition to poor quality of water. The Ministry of Health monitors the quality of drinking water, but lacks modern equipment to carry out reliable monitoring while infrastructure needs repair and investment.

The targets set in MDG 7 are important for Azerbaijan and form an integral part of the State Programme on Poverty Reduction and Economic Development (SPPRED). However, some targets and indicators, such as those regarding land area covered by forest, or protection of biologically diverse areas involve sensitive political issues that will require more dialogue at the local community level. This is partly due to the need to ensure that the poor are not deprived of access to land and energy supply (i.e. firewood) in situations where supply of alternate energy sources cannot be guaranteed at affordable prices.<sup>1</sup>

### QUICK FACTS

<b>Total UNDP-GEF and Co-Finance:</b>	\$1,133,000
<b>Total:</b>	\$1,133,000

<b>Cumulative Total ODS Phased-Out:</b>	307 ODP tonnes
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### SPOTLIGHT



#### Technology Conversion Leads to Sustainable Business Practice and Ozone Protection Strategy<sup>2</sup>

Upon ratifying the Montreal Protocol in June 1996, Azerbaijan joined the global community that shares responsibility to protect the ozone layer by committing to phasing-out ozone-depleting substances (ODS). Without a meaningful strategy to convert existing enterprises to non-ODS materials before legal supplies ran out, Azerbaijan would have been faced with economic and social disruption once imported ODS was no longer available for industrial, commercial, and consumer applications.

A GEF-supported project of US\$ 6.8 million and additional co-financing of US\$ 2.1 million from the Government and private sector, jointly-implemented by UNDP and UNEP has assisted Azerbaijan in meeting its commitments under the Montreal Protocol. This 3-year phase-out project began in 1998, under the management of the State Committee of Ecology and Nature Management Control, the national co-ordinating body that created the necessary administrative and legal framework to control the trade and usage of ODS. The project focused on two core components: technology conversion and technical assistance and training. The enterprise-specific technology conversion focused on the Sumyagit Compressor Plant and Chinar; 100% locally-owned enterprises that manufacture compressors and domestic refrigerators. The conversion allowed Sumyagit to reduce use of ODS, while Chinar was able to eliminate 122 metric tonnes (MT) annually by using cyclopentane-based foam systems for refrigeration. The servicing of refrigeration equipment is a large user sector in Azerbaijan, accounting for 449 MT of ODS – about 97% of the total sectoral consumption. Thus, the technical assistance and training project proved critical to the success of the ODS phase-out efforts.

Public awareness activities via radio, television, and public meetings, were heavily promoted to support phase-out efforts, and involved the participation of technicians and students. In addition, the companies involved introduced new technologies and upgraded the skills of their specialists, enabling them to remain competitive in the regional refrigeration market.

Azerbaijan's Poverty Reduction Strategy (PRS) works to cement support for economic and social development policies that aim to enable the country to meet the MDGs and enhance the social and economic wellbeing of the country. According to a recent World Bank report, "Azerbaijan's PRS ranks among the highest scoring countries. The credit can be partly attributed to UNDP's advocacy efforts to align the State Programme on Economic Development and Poverty Reduction (SPPRED), Azeri name for PRS, with MDGs, particularly with MDG 7 for environmental sustainability. UNDP will continue to support the government's efforts to better understand and address poverty-environment linkages and to monitor progress towards implementation of MDG 7."



**Marco Borsotti, Resident Representative**

## PORTFOLIO

### FSSD\*

GEF is working to help Azerbaijan's NCSA identify capacity development needs that are instrumental for the framework of a national sustainable development strategy, by promoting dialogue and cooperation between government, NGOs, academia and the private sector and by identifying opportunities for "win-win" situations.

### ENERGY

Azerbaijan is working to identify the critical priorities for UNFCCC implementation in the country through a highly consultative and participatory process involving stocktaking and stakeholder consultation.

### LAND

GEF is working to help Azerbaijan address policy, institutional and legislative deficiencies by contributing to improved coordination and integration of land issues into national and sectoral programmes and pilot SLM approaches for further dissemination and replication.

### BIODIVERSITY

Azerbaijan has a complicated geological history and variegated geographical location, which together have influenced the development of a high diversity of fauna and flora in the region. The NBSAP enables Azerbaijan to identify strategic directions and actions to conserve biodiversity that has been threatened from human pressures. GEF is supporting public awareness efforts, as well as facilitating the promotion of knowledge on biodiversity issues and enhanced mainstreaming of biodiversity concerns into national development strategies.

### CHEMICALS

UNDP is supporting the Azerbaijan Republic in the phase-out of ODS consistent with its Montreal Protocol obligations. Through a targeted training campaign, a GEF funded project underway aims at ensuring availability of qualified national technical expertise in order to expedite the implementation of the country programme. The project targets priority ODS phase-out activities in the refrigeration and halon sectors and also proposes technical assistance at the institutional and enterprise levels to facilitate implementation of the country programme.

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### PARTNERS

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# EUROPE AND THE COMMONWEALTH OF INDEPENDENT STATES

## BELARUS



### SPOTLIGHT

#### New Integrated Management Programme Secures Important Biodiversity Habitat<sup>1</sup>



Located near the centre of Europe, Polesie is a unique biogeographical area of 13.2 million ha covering all of southern Belarus, northern Ukraine and adjacent areas in Poland and Russia. During the 1960-1990s, a sweeping drainage campaign was implemented by the Government, which took no account of conservation needs. The resulting destruction of natural habitats caused a substantial decline in biodiversity. But despite the large-scale drainage, hundreds of hectares of fen and floodplain mires located throughout Polesie still remain in near-natural condition.

In 1999, UNDP, together with the national NGO, APB-BirdLife Belarus, launched a project to secure conservation and sustainable management of Polesie biodiversity. The project assisted the Government in the implementation of integrated management plans for key biodiversity sites and the facilitation of better coordination of the stakeholders involved in management and conservation of natural resources. The initiative was financially supported by the GEF, the UK's Darwin Initiative and RSPB.

This design-phase (1999-2002) was pioneering in producing management plans for 3 key biodiversity 'hotspots' of Polesie, the national reserves of Sporovsky, Dikoe and Zvanets. The second phase (2002-2006) – a full GEF-supported project of US\$2.9 million and \$9.09 million in co-financing, submitted for approval in June 2005 – will assist the Ministry of Natural Resources and APB in the implementation of practical nature conservation activities in the area through realization of the urgent measures laid out in the management plans for the 3 reserves.

By targeted onsite interventions and improving local capacity of the reserve, the programme has been successful in securing a sustainable future for the biodiversity hotspots of Belarusian Polesie. It has stimulated positive changes to the overall system of protected areas in Belarus by raising public awareness of and participation in biodiversity protection as well as increasing the capacity of the government and local agencies in protected areas management.



# BIODIVERSITY

## QUICK FACTS

<b>Total UNDP-GEF and Co-Finance:</b>	\$26,065,354
<b>Total UNDP and Co-Finance:</b>	\$1,317,636
<b>Total:</b>	\$27,382,990





Belarus has limited stock of traditional energy resources, such as coal, oil and gas. Hence, dependence on imported fossil fuel creates a considerable burden on the national trade balance and has hindered economic transition in the country. The situation is exacerbated by the fact that domestic fuels, such as brown coal and peat, are high in carbon and other pollutants. That is why sustainable energy and environment have long been a priority in UNDP's cooperation with the Government of Belarus. Currently, UNDP is working with the Government of Belarus to undertake a national capacity assessment so that it can meet its obligations under the international environmental commitments, reduce its reliance on imported energy sources, and improve its techniques for water quality monitoring.



## PORTFOLIO

**Cihan Sultanoglu, Resident Representative**

### FSSD\*

The Ministry of Natural Resources and Environmental Protection and UNDP are assisting the Government of Belarus in creating prerequisites to sustainable economic, social and environmental development, by promoting the elaboration of a National Sustainable Development Strategy until 2020 (NSDS) through participatory public policy dialogue. Activities include enhancing the collaboration between governmental institutions and civil society in formulating and implementing socio-economic and environmental policy based on equal partnership and broad participation.

### WATER

Belarus is participating in a regional GEF project involving Ukraine and Russia regarding conservation of the Dnieper River. Capacity building at the national level has been achieved through needs assessment, establishment of baseline levels of water quality for measuring progress, setting up of computer based linkages between river management agencies in the three countries. As of late 2004, the Strategic Action Plan has been developed and the approval process is underway. This initiative is being executed through UNOPS and IDRC. Parallel financing is also provided by each respective government.

### ENERGY

By reducing the reliance on imported energy sources, Belarus, with the support of GEF and CEE, aims to remove barriers to energy efficiency in the state sector. Biomass energy is the current driver of alternative energy resources in Belarus and the Project Spotlight section (please view opposite page) illustrates the positive use of biomass energy and that barriers can be overcome given the appropriate capacity, knowledge and funding.

### BIODIVERSITY

GEF and co-financing resources are supporting the protection of the peat wetlands, natural bird habitats and the reduction of regional desertification resulting from large peat extraction for domestic fuel production. Activities also include a significant reduction in CO2 pollution as dependence on peat fuel is curbed. The Government has also provided support in the implementation of biodiversity management plans by improving coordination among conservation managers.



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## BOSNIA AND HERZEGOVINA



### Progress Towards Environmental Sustainability

MDG7

Various authoritative studies have shown that Bosnia and Herzegovina is facing serious weaknesses in environmental management and regulation. These include: weak environmental policy and legislation, especially at the state level; insufficient technical capacity; an absence of public participation in the decision-making process; inadequate monitoring; and no effective economic incentives, such as taxes, to promote compliance. The very low level of political interest in the country's environmental problems as well as a widespread lack of expertise and capacity within official circles has worsened the prospects for environmental sustainability efforts in the country.

As per Target 11 of MDG 7 – significantly improving the lives of slum dwellers – the prevalence of land mines in the Bosnia and Herzegovina context serves as a major and unacceptable limitation on the quality of ordinary daily life, and their removal is therefore regarded as an appropriate and positive replacement for the target given in the global framework. It is alarming that eight years after the end of hostilities, 75-80% of the known mine fields still remain to be cleared, thereby intensifying the need to accelerate de-mining efforts.

Much still needs to be done to halve the proportion of people without access to safe drinking water by 2015. According to 2000/2001 base data, 53% of the population was connected to main water supply systems. The government aims to increase this percentage so that by 2015, 67% of the population will be connected to secure water supply systems. Investment in water delivery infrastructure is therefore of high priority in order to achieve these targets.

### QUICK FACTS

<b>Total UNDP-GEF and Co-Finance:</b>	\$50,000
<b>Total UNDP and Co-Finance:</b>	\$250,000
<b>Total:</b>	\$300,000

Achievement of the MDGs will require substantial policy changes and good governance. In Bosnia and Herzegovina, all of the characteristics of good governance – accountability, transparency, participation, professionalism, and efficiency, are called into question. There needs to be a stronger push for reforms in order to avoid stagnation and to make progress towards the MDGs.<sup>1</sup>

## SPOTLIGHT

### Raising Awareness on the Benefits of Recycling<sup>2</sup>

Solid waste jeopardizes the soil, the water and the air. In the period immediately following the conflict in 1995, Bosnia and Herzegovina was not able to address this environmental problem adequately, resulting in over 10,000 registered dumpsites by the banks of Bosnian rivers. However, environmental concerns are increasingly being given a higher priority as concerns over war are left behind.

In 2004, with US\$ 50,000 funding from UNDP, volunteers from the environmental organization Ekotim launched the campaign, "What should you know about waste? – Not all waste is garbage!" The campaign promoted collection of separated waste and reached approximately 25,000 citizens of selected pilot areas of Sarajevo.

Ekotim prepared the campaign in cooperation with local waste collection company KJKP RAD, with advisory support from UNDP, UN Volunteers and the Ministry for Urban Planning and Protection of the Environment. The main objective of the campaign was to raise awareness among school pupils and their parents of the importance and potentials of waste recycling, focusing on the separate collection of plastic, aluminium, paper and cardboard. Ekotim volunteers, in collaboration with the ecological departments of selected elementary schools, trained pupils and encouraged them to share their acquired knowledge among relatives, neighbours and friends in order to maximize impact and collect the highest possible quantity of separated waste in the containers placed in the pilot school yards.

The project was very successful with over 30 tons of paper collected by school children in the city of Sarajevo. More importantly, the enthusiasm shown by the students towards recycling represents an important and encouraging sign for the successful implementation of future campaigns and for a cleaner environment for Bosnia and Herzegovina.

The aim of UNDP BiH's environment portfolio is to support the Government of BiH in overcoming its challenges in achieving sustainable environmental development, by building national capacity.<sup>3</sup> Sustainable energy systems and sound environment management play a central role in reducing poverty and contribute to the achievement of the MDGs. In addition to supporting biodiversity initiatives, UNDP in BiH promotes sustainable and efficient energy use and assists the government in implementing the UNFCCC."



## PORTFOLIO

**Jens Anders Toyberg-Frandzen, Resident Representative**

### FSSD\*

The paper-recycling project is highlighted in the project spotlight.

### ENERGY

UNDP supports the energy efficiency project, whose overall objective is to mainstream low cost sustainable energy issues into reconstruction and recovery efforts in rural areas in BiH, thereby reducing the operational costs and increasing the comfort level of the buildings, while at the same time mitigating the emissions of greenhouse gases. The project consists of a training component, a demonstration component and a feasibility study regarding the use of Biomass fired boilers in rural households or for rural productive uses in BiH.



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<sup>3</sup>Bosnia and Herzegovina MDGR 2004 <http://www.undp.ba/download.aspx?id=219>; <sup>4</sup>UN Volunteers in Bosnia Herzegovina News, "What should you know about waste? – Not all waste is garbage!" February 2005: <http://www.unv.ba/news1.asp?n=40>; <sup>5</sup><http://www.undp.ba/index.aspx?PID=13&RID=10>; <sup>6</sup>Frameworks and Strategies for Sustainable Development

## BULGARIA



### Progress Towards Environmental Sustainability

MDG7

Bulgaria is one of the European countries with the richest biological diversity. Protected territories cover about 5% of the total area of the country, but their management is not at a desired level of effectiveness. Fires have posed a serious threat to biological diversity in recent years. Forests make up about 35% of the country.

Bulgaria has a well-developed water supply system, serving more than 98% of the population in 84.6% of the human settlements. This proportion, however, is different for towns and villages. Unlike cities and town, which have 100% coverage of access to safe drinking water, only 81% of the villages enjoy access to a safe drinking water supply. Villages without, or with only a partial water supply, are located mostly in the mountainous areas.

Almost all emissions of substances contributing to air pollution have been reduced in recent years. Methane and cadmium are an exception as they have shown some increase. Carbon dioxide emissions result mostly from domestic firing processes, road transport, and industrial combustion processes. Positive changes are due to a shrinking of the industrial sector, and to successful measures taken for pollution reduction.

Bulgaria's environmental sustainability targets aim at considerable improvement of living conditions in poor neighborhoods and villages. Improving environmental conditions will depend to a great extent on compliance with EU environmental standards.

### QUICK FACTS

<b>Total UNDP-GEF and Co-Finance:</b>	\$46,982,054
<b>Total UNDP and Co-Finance:</b>	\$2,490,000

Achieving all MDG 7 targets will require a constructive and effective dialogue between government agencies, environmental NGOs, scientific circles, and business interests.<sup>1</sup>

### SPOTLIGHT



#### Capacity Building of Municipalities Initiates Energy Efficiency Activities<sup>2</sup>

Bulgaria's heating and energy system is based on the burning of low-quality coal, resulting in high emissions of pollutants. Increased air pollution has made energy efficiency a critical issue to be addressed. However, addressing this has been difficult due to limited experience nationally in incorporating energy efficiency considerations into public and private decision-making. The institutions and individuals needed to deliver the technical, managerial and financial services necessary for an energy-efficient society required strengthening.

In 1998, a GEF-supported project of US\$ 2.575 million and a total budget of US\$ 7.436 million supported a local NGO, EnEffect, in launching a project to introduce energy efficiency practices at the municipality level. These practices included overcoming barriers to improve energy efficiency and reduce emissions of GHGs and other environmental pollutants. Capacity building activities were the heart of the project. These activities focused on municipalities as the critical political and socio-economic unit for bringing about change in Bulgaria. They included municipal energy management, training and financing activities. Supporting demonstrations in street lighting, district heating, and building retrofit projects displayed how capacity building could be applied to future projects. Project management supported these efforts and the rapid diffusion of capacity building and demonstrations to other municipalities, reaching at least 30 municipalities – a critical mass for ensuring that the reforms continued throughout the country after the project was concluded.

The project has been a successful catalyst in initiating energy efficiency activities and developing the necessary expertise in Bulgaria. Over 40 energy efficiency projects have been developed and implemented in participating municipalities and training in energy planning, project development and finance were successfully performed. The results of the project were disseminated among other potential beneficiaries through the national Municipal Energy Efficiency Network, EcoEnergy.

UNDP draws on global expertise to help Bulgarians build sustainable livelihoods through nature conservation and sustainable energy practices. UNDP's involvement ranges from policy and strategy advice and options in natural resource management and energy services to demonstration projects.<sup>3</sup> "Access to clean water and sanitation remains an important element of our on-going cooperation with the government and municipalities of Bulgaria under the issue of improving living conditions for disadvantaged minorities in urban areas. UNDP is also developing projects on better integration of environmental priorities into spatial and development plans to make sure development of cities, towns and villages in Bulgaria truly reflects the ideas of sustainable development."



**Neil Buhne, Resident Representative**

## PORTFOLIO

### FSSD\*

The overall objective of the GEF-funded capacity project is to develop at individual, institutional and systemic levels for meeting the key obligations under the three Rio Conventions. Activities include capacity building for mainstreaming global environment into the regional development policy, planning and budgetary processes.

### ENERGY

GEF is supporting the promotion of an energy efficiency market in public and private buildings. Efforts include raising awareness, building the capacity of the local energy service providers to effectively market their services, and facilitating effective replication and dissemination of the results. GEF is also working to increase energy efficiency in household appliances.

### LAND

Bulgaria's long-term development objective is to enhance capacity for arresting land degradation and to establish sustainable land management practices that contribute to improving ecosystem health, integrity, functions and services, while promoting sustainable livelihoods. GEF is facilitating this, in addition to supporting efforts to implement a coherent land policy while focusing on mainstreaming, institutional and technical capacity building, and establishment of financial mechanisms and resource mobilisation for sustainable land management.

### BIODIVERSITY

Efforts to preserve the globally important migratory species and their habitats along the Bulgarian Black Sea Coast will be achieved through the mainstreaming of conservation concerns and principles into urban development, tourism and energy industries and policies, with the support of GEF funds. Other biodiversity objectives include ensuring the long-term conservation of the globally-important biodiversity of the Ponor Mountain grasslands, also through GEF. A Rhodope Mountains project, funded by GEF, is working to conserve and sustainably use its biological diversity, while devising innovative and adaptive practices to mitigate and prevent threats to biological diversity.

### CHEMICALS

Bulgaria is participating in a regional GEF-funded project, managed by UNEP in partnership with UNDP, that aims to rapidly phase-out all non-exempted uses of methyl bromide (MB). The project addresses the key barriers that have prevented the adoption of MB alternatives to date by providing training for MB users, resources to assist the procurement and installation of alternatives, and policy development and capacity building. The project will transfer and install existing MB alternatives. It will also build capacity and carry out pilots to ensure the ongoing adoption of environmentally sustainable alternatives in the longer term.

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<sup>3</sup>Bulgaria MDGR 2003 <http://www.undp.bg/en/publications.php?content=yes&ID=2&PHPSESSID=d7032e68416fc971a39a5a1f00761e3a>; <sup>4</sup>UNDP Bulgaria, 'Energy Efficiency Strategy To Mitigate GHG Emissions - Energy Efficiency Demonstration Zone In The City Of Gabrovo, Republic Of Bulgaria', Final Project Evaluation Report April 2004, Ji Ji Zeman and Nikolas Karadimov Project Name: Energy Efficiency Strategy To Mitigate GHG Emissions; <sup>5</sup>[http://www.undp.bg/en/focus\\_areas.php](http://www.undp.bg/en/focus_areas.php); <sup>6</sup>Frameworks and Strategies for Sustainable Development



## CROATIA



### Progress Towards Environmental Sustainability

MDG7

The management of forests in Croatia has been based on natural renewal through care and protection under professional supervision. The state of forest ecosystems in Croatia in comparison to those of Europe has been judged as relatively good, as nearly 95% of the forest area is of natural composition. Forestland makes up 43.5% of the total surface area of the mainland part of the national territory.

During the period between 1991 and 2001, the number of protected natural sites increased from 371 to 427. Croatia has begun to prepare a National Ecological Network, which will include all the regions that are important for the species and habitats endangered on the European and national levels. The Preliminary Ecological Network for the Republic of Croatia, established in 2002, identifies the basic elements of the ecological network according to which organisms migrate and buffer zones. The key indicators of biological variety are grouped into ecological systems, species and subspecies and genetic varieties, and indicate the status, pressure and response of the society. Croatia has chosen ten such indicators, for which it is realistic to expect the regular collection of data and the establishment of a system for monitoring the state of the environment.

Croatia aims to provide 94% of the population with access to the public water supply system by 2015, compared to the 76% who had access in 2001. The financial means necessary for achieving this goal have currently not been secured, which makes funding one of the major priorities for the next period. Croatia also aims to provide 65% of the population with access to public sanitation by 2015, compared to the 41% who have access to public sanitation with second-degree purification of wastewater. The improvement of Croatia's waste management system is an additional country goal that also requires increased financial resources, public and private partnerships.<sup>1</sup>

### QUICK FACTS

<b>Total UNDP-GEF and Co-Finance:</b>	\$21,196,900
<b>Total UNDP and Co-Finance:</b>	\$2,260,000
<b>Total:</b>	\$23,456,900

### SPOTLIGHT

#### Clearing Waste Clears Barriers to Recovery and Stabilisation<sup>2</sup>

Sustainable development is at the heart of EU policy and fundamental to balanced growth. However, this can only be achieved if environmental issues are dealt with adequately. Across much of the Western Balkans environmental planning is inadequate, and recent neglect of environmental considerations has left many scars, both visible and invisible. Among the most visible effects is the accumulation of garbage which became common in Croatia following the end of the conflict in 1995.

In December 2003, UNDP implemented \$1.8 million to support municipal environmental management, the 2-year Municipal Environmental Management Capacity and Infrastructure (MEMCI) project. The towns and municipalities of the counties of Sibenik-Knin and Zadar were the first recipient institutions in March 2004. The project is the first of its kind to implement waste management strategies developed by the Ministry of Environmental Protection, Physical Planning and Construction, and will provide best-practice examples of planning and implementation to other towns and municipalities in Croatia.

The specific objectives of MEMCI are to build capacity for effective environmental services management among local waste management providers and to create a basis for municipal lending for investment in environmental infrastructure in towns and municipalities. The project has established an organisational framework for the regionalisation of waste management, and has secured the closure and remediation of uncontrolled and illegal landfills and dumps. The project will also address specific problems such as waste management on Croatia's numerous islands, waste management and tourism, and constraints to landfill development. The project is addressing some of the most pertinent issues facing waste management in Croatia, which will have significant benefits for Croatia's future economic and human development.

# STRATEGIES

UNDP Croatia supports the national, county and local government institutions and agencies in fostering cooperation and a better understanding of the country context in order to make informed choices among environmental policy options. The aim is to ensure that natural resources are used in a sustainable manner, and to comply with international obligations and agreements. The challenges in Croatia are mostly being addressed through the GEF. In addition, UNDP Croatia aims to mobilise supplementary resources in order to better address the complexity of environmental issues such as municipal waste management, effective management and conservation of nature protected areas, thereby contributing to MDG 7 for environmental sustainability.

**Cornelis Klein, Resident Representative**

## PORTFOLIO

### FSSD\*

UNDP is working to develop the capacities needed to answer the challenges of the environmental requirements related to EU accession, including the preparation of the National Sustainable Development Strategy. This is done through The Capacity Building of the Environment Division project. UNDP, through The Capacity Building of the Croatian Bank for Reconstruction and Development project, is also working to create the environmental competencies within the Bank and to integrate the environment and sustainability considerations into all banking practices. This assists in developing new financial instruments for "green" financing.

### WATER

Croatia is one of the participating countries in the GEF-funded Danube-region project, aiming to set up the institutional and legal instruments to assure nutrient reduction and sustainable water management, and also to support the implementation of the EU water framework directive.

### ENERGY

GEF provides assistance in the preparation of the First National Communications Report to UNFCCC in order to assess national capacities and needs on Climate Change issues. Efforts include the removal of barriers to energy efficiency implementation and practices, and the provision of policy-change recommendations. In addition, capacity building initiatives are underway to improve the quality of GHG Inventories in the countries of the region. Croatia also has a Programme of Capacity Building for the Removal of Barriers to the Cost-Effective Development and Implementation of Energy Efficiency Standards.

### BIODIVERSITY

The biodiversity programme goal is to ensure that the development path of the Croatian coast is environmentally friendly with the conservation of biological diversity firmly mainstreamed into that development path. Pending GEF approval, the activities envisioned will effectively transform the actions, practices and approaches of private operators in the tourism, agriculture and fisheries sector and in part by influencing the banking sector, thereby mainstreaming biodiversity conservation into these sectors' practices.



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### PARTNERS

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EU-CARDS

CYPRUS



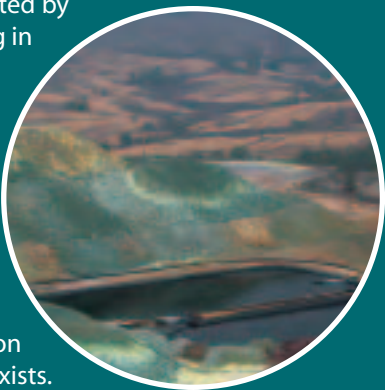
SPOTLIGHT

Transboundary Transfer of Environmental Technology<sup>2</sup>

There are barbed wires and there are walled-up buildings. There are also check-points and minefields. But have environmental problems ever stopped at the checkpoint to show their passports? The island of Cyprus exists as a single ecosystem, despite the military barriers that prevent human passage between the Greek and Turkish Cypriot sides.

In June 2004, the Bi-Communal Development Programme (BDP) organised workshops on organic farming with joint UNDP/USAID funding of US\$ 24,000. The workshop was attended by a large number of stakeholders concerned with a sustainable future for farming, mining and forestry in Cyprus, including farmers associations (Greek and Turkish Cypriots), representatives of the Forestry Department, academia, environmental NGOs, and experts from the Agricultural Research Institute. The workshop discussed potential applications of mycorrhizal technology in Cyprus, an environmentally-friendly technology which can help re-vegetation of environments that are extremely hostile to plants, such as abandoned mines, areas which are severely eroded, very arid, or where the soil is too salty. The interest generated by this mutual gathering of separated rivals was immense. The EU group of experts specialising in mycorrhizal took a special interest, and provided five additional experts as trainers.

Organic agriculture is one of the main potential beneficiaries of mycorrhizal in Cyprus, which can often be used as a natural alternative to fertilisers and pesticides. Following the success of these workshops, the Cyprus Organic Advisory Group (COAG) was formed in 2005. This group of organic farming practitioners works to develop organic farming in Cyprus through improved production, promotion, market research and assistance for certification. Unlike previous efforts, the COAG has both Greek and Turkish Cypriot members, who by working together are not only helping to develop an organic farming sector in Cyprus, but are also forging lasting bonds between the two divided communities. Common environmental issues bring together knowledge and resources, between which no border exists.



LAND

QUICK FACTS

Total UNDP and Co-Finance:	\$4,382,932
Total:	\$4,382,932



Through the many environmental activities and campaigns led by the Bi-communal Development Programme, as well as its numerous recycling and waste management projects, the environmental wealth of Cyprus is being promoted and preserved. The Bi-communal Development Programme addresses the common environmental concerns of Greek Cypriots and Turkish Cypriots and promotes the required synergies to overcome them.<sup>3</sup> This island is a single ecosystem, and work on energy and environment issues should consider this as an important factor for success. This is why the Bi-Communal Development Programme has invested so much in environmental projects.



## PORTFOLIO

**Nicolas Jarraud, Resident Representative**

### FSSD\*

USAID/UNDP supports a number of Cypriot projects including the Bi-communal Cooperation between Environmental Experts - a collaboration effort between Greek Cypriot and Turkish Cypriot chambers of engineers. The Madison Dairy Advisory Group aims to improve milk quality. Other initiatives include support for the island-wide eradication of Brucellosis and also enhancing co-operation between Turkish Cypriots and Greek Cypriots on this subject. Along the same lines, Echinococcosis is being eradicated. An online database and printed Environmental Directory is being produced about Environmental NGOs in Cyprus.

### LAND

UNDP/USAID is supporting a variety of land management programmes in Cyprus. For example, the Innovative Biological Approaches for the Reforestation of Environmentally Stressed Sites programme aims to facilitate the utilisation of mycorrhizal technology for bio-remediation of mines. A bi-communal sustainable tourism strategy is also underway and it identifies opportunities for supporting community-based agrotourism and ecotourism. An analysis of soil samples for carcinogenic contaminants such as Cadmium is yet another ongoing effort.

### BIODIVERSITY

USAID/UNDP supported the effort to protect the endangered Cyprus Moufflon, an endemic mountain sheep, from extinction. The south's Game Fund Services and the north's veterinary experts are working together to better understand and protect this animal by studying movements and activities of the Moufflon populations on both sides of the buffer zone. Through their conservation efforts, there are now over 3,000 Moufflon existing mainly in the Paphos Forest area.



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USAID

<sup>3</sup>UNDP Cyprus questionnaire, 2005; UNDP Cyprus website: <http://www.unopspmu.org/PPR7.htm>; <sup>4</sup><http://www.unopspmu.org/environment.ht>; <sup>5</sup>Frameworks and Strategies for Sustainable Development



# EUROPE AND THE COMMONWEALTH OF INDEPENDENT STATES

CZECH REPUBLIC / SLOVAK REPUBLIC  
SLOVENIA / MALTA



## Progress Towards Environmental Sustainability

MDG7

For most of the environmental indicators, the state of the environment in the Czech Republic does not differ significantly from the EU and OECD averages. The reasons for this situation, which differs greatly from the alarming situation at the end of the 1980s, lie both in the positive impact of national economic restructuring and implementation of active measures, including preparation and enforcement of new legislation in environmental protection (the Czech Parliament approved 16 environmental acts alone in 2002 — 2003). In addition, the State Environmental Policy has had a positive effect. An effective administrative system was created at all levels, including a system of supporting professional institutions and extensive investments. In the absence of unforeseen events, the basic trend in the period to 2010 should be a very slight gradual improvement in the state of the environment.

Since 1990, there has been a consistent and significant decrease in the amounts of pollutants discharged into surface waters. In 2002, there was stagnation in these indicators due to catastrophic floods on most of the Czech territory. An important development resulting from improved water quality led to an increase in the number of inhabitants connected to the public sewer system. The number of inhabitants with access to the public sewer system in 2002 reached 7.99 million, or 77.4% of the population of the Czech Republic. However, some parts of the sewer systems are not yet connected to waste water treatment plants and 22% of the population still lives in houses that have no connection to public sewers.

## QUICK FACTS

<b>Total UNDP-GEF and Co-Finance:</b>	\$45,912,039
<b>Total:</b>	\$45,912,039

In order to achieve the MDG targets for environmental sustainability, the Czech Republic aims to concentrate on cost-effective measures to deal with environmental problems. The investments are envisioned to gradually shift from “end-of-the-pipe technology” to the introduction of new “cleaner” production technologies and to utilize flexible and group regulation mechanisms and voluntary activities.<sup>1</sup>

## SPOTLIGHT



### Low Cost, Low Energy Buildings<sup>2</sup>

Reducing CO<sub>2</sub> emissions is a critical first step to reducing climate change. This was difficult in the Czech residential housing sector, an industry often mired in rapid construction and inefficient insulation, resulting in a net increase in energy consumption in the long term. There was a lack of experience with the technical, economic, social and environmental aspects of low-cost, energy-efficient buildings, as well as a lack of standards and the common misconception that higher initial costs for energy-efficient technology meant higher total cost.

A GEF-supported US\$ 448,000 project, with an additional US\$ 980,000 in local investments, began in 1999 with the aim of reducing GHG emissions by removing these barriers to the widespread use of low-cost, low-energy (LC-LE) technologies in the housing sector. Implemented by the Czech NGO SEVEN, this pilot project developed construction plans for low-energy buildings, and negotiated with local investors, builders and policy makers to finance the construction and awareness of the housing projects. New energy standards for design and construction were developed in the pilot-cities of Sušice, Písek, and Humpolec and eventually adopted by the Government. The removal of these barriers will lead to estimated GHG reductions of about 25% in the residential housing sector of the Czech republic by the year 2010, or 650,000 tonnes equivalent per year.

While LC-LE houses may have up to 20% increase in initial costs, they can credit this against 40% lower energy consumption through better insulation of hot-water pipes and installation of low-pressure valves. To date, 77 professionals have been involved in the design and construction of new energy-efficient buildings, 500 professionals and 250 students have been trained in design and construction, two multi-apartment buildings have been built, and six single-family homes are under construction. The response to the project has been positive from the media and the community with two buildings receiving awards.

Achieving global environmental management has been highlighted as one of the important areas of concern in Slovenia for which UNDP has responded by launching a programme addressing capacity development. In the Czech Republic, UNDP has helped implement programmes addressing sustainable development to increase efficiency in resource use, pollution reduction, which inevitably leads to a higher quality of life. The country has also launched a number of projects, dealing with sustainable use of biodiversity and greenhouse gas reduction. Malta is taking conservation measures to protect its areas of ecological importance, while integrating sustainable development in the country's policies. UNDP is assisting Malta to meet its obligations under the International Environmental Agreements, in particular, UNFCCC. UNDP Slovakia has contributed to a number of projects that address environmental degradation and its impact on access to services by the poor, particularly access to basic services in the least developed regions of the country.

## PORTFOLIO

### FSSD\*

The Slovak Republic, Slovenia and the Czech Republic are committing themselves to global environmental management. The GEF-funded NCSA process explores the synergies between the areas of biodiversity, climate change and land degradation with an emphasis on capacity development. Separately, the Slovak Republic and Hungary are generating local sustainable development initiatives. For Slovakia, the strategy analyses current development practices in 5 communities, whereas Hungary is assessing the development of the past 10-20 years for its local agenda. Both countries share responsibility for rural, environmental friendly development in the Karst and Aggtelek border region. UNDP and GEF both provide financial assistance to these efforts.

### ENERGY

UNDP and GEF are working to reduce CO2 emissions in existing public buildings in Hungary and improving energy efficiency of new, residential buildings in the Czech Republic. Slovakia is assisting marginalized groups in the Spis region by providing them with heating facilities based on renewable energy sources. At the same time, Slovenia seeks to remove barriers to biomass heating in residential communities by improving existing boilers and fireplaces. Malta's contribution in the energy sector is aimed at enhancing federal level capacity to prepare future National Communications to the UNFCCC

### CHEMICALS

The objective of the POPS Enabling Activity project is to create sustainable capacity in and ownership by the Slovak Republic to meet its obligations under the Stockholm Convention, including initial preparation of a POPs Implementation Plan, as well as broader issues of chemicals safety and management as articulated in Chapter 19 of Agenda 21. Specifically, enabling activity project co-ordinating mechanisms will be established and capacity built; national infrastructural and institutional capacity assessed; initial POPs inventories performed; objectives and priorities for POPs and POPs reduction and elimination options set; POPs Implementation Plan drafted, reviewed and finalised.



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## GEORGIA



### Progress Towards Environmental Sustainability

Recent democratic changes in Georgia have seen the emergence and rapid strengthening of environmental NGOs. The introduction of a legislative framework has promoted a certain degree of civil participation in decision-making. A Law on Environmental Impact Assessment was enacted in 1996. In 2000 Georgia acceded to the Aarhus Convention on Access to Environmental Information, Public Participation in Decision-making and Access to Justice in Environmental Matters.

Access to safe drinking water is still a problem and is further compounded by the uneven natural distribution of water resources across the country, with severe water shortages experienced by the population of eastern regions. Ground water represents the major source of drinking water. 65% of drinking water supply is provided by centralized systems, which meets the demand for drinking water of 95% of urban, and 35% of the rural population. The sanitary and technical condition of existing water pipelines is unsatisfactory. No major rehabilitation or repair works have been carried out since 1987, inflicting the loss of 25-30% of total drinking water supply.

The earthquake of 2002 damaged about 21,500 residential houses in Tbilisi alone. Socially subsidized community/municipal accommodation has virtually vanished due to mass privatization of housing. Local governments are unable to undertake proper public reconstruction. Mortgage schemes are starting to appear, but are currently not widely used.

Particularly alarming is the "slumerisation" of multi-story houses. There has been no consistent preventive maintenance, routine or capital repair. Roofing and engineering communications are out of order and the load-bearing capacity has decreased. Georgia's highly seismic zones further complicate this situation.

### QUICK FACTS

<b>Total UNDP-GEF and Co-Finance:</b>	\$19,369,208
<b>Total UNDP and Co-Finance:</b>	\$649,629
<b>Total MPU and Bilateral:</b>	\$117,350
<b>Total:</b>	\$20,136,187

**Cumulative Total ODS Phased-Out:** 5.2 ODP tonnes

Forests, many of which are virgin, cover almost 40% of the country. There are about 26,000 small rivers and 16 different landscapes in the country. A network of state reserves is expected to promote biodiversity in Georgia. As of 2003, the total area of reserves comprises 4.1% of the country. Financial constraints and institutional weakness prevent the management of protected territories under prescribed regimes.<sup>1</sup>

### SPOTLIGHT

#### Incentives Programme Helps Phase-out ODS<sup>2</sup>

In 1996, Georgia acceded to the 1985 Vienna Convention for the Protection of the Ozone Layer and the 1987 Montreal Protocol on Substances that Deplete the Ozone Layer. In order to meet its Montreal Protocol commitments, Georgia was required to gradually reduce the production and import of ozone-depleting substances (ODS), of which a significant portion were used in the commercial and industrial refrigeration sector.

In 2002, with support from UNDP, the Government of Georgia launched a project to meet the country's ODS phase-out schedule under the Montreal Protocol by providing incentives to end-users in commercial and industrial refrigeration sub-sectors. Selected enterprises were given an incentive payment to replace or permanently retrofit the existing refrigeration equipment with new equipment using a non-ODS refrigerant or a refrigerant with less potential to deplete the ozone layer.

A national workshop was held to introduce the programme and present the concept and procedures of the incentive programme to end-users. The workshop raised general awareness about the importance of phasing-out CFCs and helped stakeholders identify appropriate alternatives for CFCs in the commercial and industrial refrigeration end-user sector. Participants in the national workshop included commercial and industrial refrigeration sector end-users, as well as representatives from NGOs, the State Technical University, and the National Ozone Unit of the Ministry of Environment of Georgia.

Upon completion of the programme, 15 enterprises in total received assistance to change refrigeration systems from ODS to alternative refrigerants. As a result of this initiative, approximately 85% of Georgia's consumption of ODS has been phased-out and the country has been able to meet its Montreal Protocol commitments to date.

Sustainable environment and natural resource practices in Georgia will be promoted and adopted through the implementation of pilot projects, multiplying their successes nationwide, and intervention at the policy level.<sup>3</sup> UNDP works towards building capacity for protecting and managing the environment, while ensuring sustainable development in the country. The agenda is to give a human face to environmental issues; empower people to become active agents of sustainable and equitable development; promote an understanding that communities are essential to changing attitudes towards environmental issues; and advocate partnerships, which will ensure that all nations and peoples enjoy a safer and more prosperous future.



**Lance Clark, Resident Representative**

## PORTFOLIO

### FSSD\*

Georgia is undertaking its NCSA process to develop and adapt the National Capacity Building Strategy/Action Plan for the implementation of UNFCCC, UNCBD and UNCCD through a participatory process.

### WATER

GEF and SIDA are supporting a current planning phase of a project addressing water challenges within the Kura-Aras River Basin. The project establishes planning, institutional, informational, and partnership frameworks for the Basin. The UNDP/SIDA component assists South Caucasus countries with developing National Action Plans and building Integrated River Basin Management capacities.

### ENERGY

The goal of the energy programme, supported by UNDP/GEF, KfW, GoG and local investors, is to remove financial, legal-institutional, and other barriers to increased utilization of local Renewable Energy (RE) Resources through: obtaining additional finances for RE Revolving Fund and addressing legal-regulatory and public awareness and capacity barriers.

A GEF self-assessment exercise is considered as a pre-feasibility study for the Second National Communication (SNC). It aimed at increasing stakeholders' participation in decision making processes.

### BIODIVERSITY

The biodiversity Programme, supported by GEF and ELKANA, aims to preserve Georgia's agro-biodiversity through promoting practices of in-situ conservation and sustainable utilization of local agro-biological resources. The focus of this project is on selected traditional crop and fruit species in the pilot region of Samtskhe-Javakheti.

### CHEMICALS

UNDP supports Georgia's efforts towards sound management of chemicals through provision of assistance to support the country's Montreal Protocol and Stockholm Convention programmes. With MLF funding, UNDP is implementing an incentive programme for the end-users in the commercial/industrial refrigeration and refrigerated transport sub-sectors. A monitoring component that ensures good management practices is an integral part of this project. In support of the Stockholm Convention, assistance is provided through the implementation of an enabling activity that will result in NIP development for Georgia.

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### PARTNERS

**Some of our Partners working with UNDP and the Government in Georgia**

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<sup>3</sup>Georgia MDGR 2004 <http://www.undp.org/ge/news/Georgiamdg.pdf>; <sup>4</sup><http://www.unopspmu.org/environment.htm>; <sup>5</sup>Tushishvili, M., "The Final Report of UNDP Incentive Programme for End-Users in the Commercial/Industrial Refrigeration and Refrigeration Transport Sub-Sector", UNDP Georgia; <sup>6</sup>[http://www.undg.org/documents/5977-Georgia\\_UNDAF\\_\\_2006-2010\\_.doc](http://www.undg.org/documents/5977-Georgia_UNDAF__2006-2010_.doc) Page 10; <sup>7</sup>Frameworks and Strategies for Sustainable Development



## HUNGARY



### Progress Towards Environmental Sustainability

MDG7

While severe environmental problems developed in Hungary during the period of the previous regime, economic restructuring during the 1990s brought about positive change. These structural changes brought about a significant decrease in the activity of heavily polluting sectors and in pollution levels, and other economic reforms produced immediate and positive environmental changes. Pollution resulting from large-scale production, socialist industries that used obsolete technologies and high quantities of energy, such as power stations, mining and the chemical industry, shrank dramatically. Raw materials and energy use in the economy decreased, and in the subsequent economic upswing, technological progress made the introduction of environment-friendly technologies possible.

As a result, the emission of ozone-depleting substances such as sulphur-dioxide, nitrogen-oxides and greenhouse gases, has decreased on the whole, and the condition of surface waters has improved as well. This is despite the fact that industrial production in 2003 was significantly larger than in 1999.

In Hungary, the proportion of households in small villages with no potable, running water dropped by more than half, from 30% to 12% between 1990 and 2002. During the same period, the ratio of households connected to a waste collection system increased significantly. A change is most noticeable in small villages where, in 1992, this ratio was 27% and then grew to 80% in 2002. Even in 2002, only 23% of small village households had public sewer systems.

### QUICK FACTS

<b>Total UNDP-GEF and Co-Finance:</b>	\$13,209,700
<b>Total UNDP and Co-Finance:</b>	\$455,000
<b>Total:</b>	\$13,664,700

At the same time, however, the changes of the past decade also carry certain risks in terms of environmental pollution. These include significantly increased motor traffic on public roads, which has now become the foremost cause of urban pollution. Yet, especially now and within the context of accession to the EU, environmental aspects of sustainable development are becoming an ever more integral part of Hungarian economic and social development policies.<sup>1</sup>

## SPOTLIGHT

### Public Sector Energy Efficiency Programme<sup>2</sup>

Hungary has undergone a comprehensive political and economic transition, from a centrally planned to a market economy. Fundamental changes in the institutions and the structure of the economy have gradually brought about the conditions necessary for sustainable economic growth. However, until recently inefficient use of energy continued to be a problem. Energy consumption per volume heated was 20-30% higher than the typical value for EU member states with similar climates. One of the main barriers to change was insufficient awareness of the importance of energy efficiency.

In 2000, with funding from the GEF, UNDP and the Government launched a 6-year Public Sector Energy Efficiency Programme to improve energy efficiency in public sector facilities, including schools, hospitals and other public buildings. The project's total investment was US\$ 17.7 million, with US\$ 4.2 million from the GEF and the rest from the Hungarian government and private investors. A national energy efficiency agency, called the Energy Centre, was established by government decree in 2000, with the aim of addressing incentive barriers to energy efficiency, and to assist in identifying, developing, managing, and financing energy efficiency projects. The Centre's activities range from implementation of energy efficiency measures identified in the Energy Saving Programme, to operation of a nation-wide energy statistical system, and from participation in the development of national energy policy, to conducting energy management training for representatives of Hungarian municipalities.

The project has achieved improved awareness of the importance of energy efficiency by increasing the number and quality of municipal energy managers. During the first quarter of 2005, 15 new feasibility studies and two energy audit applications were received from a total of 85 municipal institutions. Training activities have strengthened the knowledge base of local energy managers on energy efficiency management techniques and technologies, which has improved identification of investment projects and low-cost opportunities.

UNDP is aiding the integration of sustainable development principles into national programmes. For example, it is working to reduce greenhouse gas emissions through efficient energy management in municipalities. UNDP cooperates closely with the Ministry of the Environment and Water in developing a vision for sustainable development. A number of programmes are in place to conserve and sustainably use biodiversity. Aid is also provided to the Hungarian Ministry of Foreign Affairs to formulate a development assistance programme and build national capacity in the area of environment.<sup>3</sup>

## PORTFOLIO

### ENERGY

The project entitled "Promoting access to energy service to foster integration and human development for disadvantaged communities in Hungary" assesses the energy needs, supply and options in a number of selected villages and to implement small scale pilot investments with training components. The Energy Efficiency Programme is presented in the project spotlight.

### CHEMICALS

Hungary is participating in a regional GEF-funded project, managed by UNEP in partnership with UNDP that aims to rapidly phase-out all non-exempted uses of methyl bromide (MB). The project addresses the key barriers that have prevented the adoption of MB alternatives to date by providing training for MB users, resources to assist the procurement and installation of alternatives, and policy development and capacity building. The project will transfer and install existing MB alternatives. It will also build capacity and carry out pilots to ensure the ongoing adoption of environmentally sustainable alternatives in the longer term.



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<sup>3</sup>Hungary MDGR 2004 Source: <http://mdgr.undp.sk/reports.php?sub=hu>; <sup>4</sup>GEF Online Project Database <http://www.gefonline.org/projectDetails.cfm?projID=835>; Energy Centre Hungary, 'Trainings Organised For Municipalities', available at: <http://www.energiakozpont.hu/>; <sup>5</sup>[http://europeandcis.undp.org/index.cfm?wspc=CP\\_HU](http://europeandcis.undp.org/index.cfm?wspc=CP_HU)

## KAZAKHSTAN



### Progress Towards Environmental Sustainability

MDG7

Ten years after independence, Kazakhstan still suffers from poor environmental practices, and in some respects the situation has worsened. According to the National Environmental Action Plan of Kazakhstan, the most pressing issues that require urgent action include: degradation of pastures and arable land; shortage of water resources; shortage of forests and specially protected natural territories; air pollution in urban areas; increasing environmental degradation related to oil and mining activities; environmental pollution due to industrial and municipal solid waste; and pollution of water bodies with wastewater.

About 66% of Kazakhstan's territory is exposed to desertification processes due to the country's geographical location and its dry climate, as well as the impact of anthropogenic factors. Every year, 10-15% of the arable land in Kyzyl Orda Oblast turns to wasteland due to dysfunctional irrigation systems. For the same reason, 20-25% of pastures to the south of the Aral Sea have been destroyed. Affected by secondary salinisation, there is a decline in the productivity of arable lands in many oblasts of Kazakhstan and especially in the South-Kazakhstan and Zhambyl Oblasts.

While the country's total volume of water resources reaches 100 cubic kilometers per annum, the existing supply does not even reach 35% of that. Water supply per capita in Kazakhstan is the lowest among the Commonwealth of Independent States countries. Annually, more than 200 million cubic meters of polluted wastewater are discharged into surface reservoirs. The natural ability of most watersheds to self-clean and self-recover seems to have been exhausted. Finding viable solutions to Kazakhstan's water problems is therefore particularly difficult.

### QUICK FACTS

<b>Total UNDP-GEF and Co-Finance:</b>	\$128,039,310
<b>Total UNDP and Co-Finance:</b>	\$1,745,000
<b>Total:</b>	\$129,784,310
<b>Cumulative Total ODS Phased-Out:</b>	618 ODP tonnes

Forests occupy only 4% of the vast territory of the country. They are, however, the habitat of the most valuable and rare species of animals and of 90% of the plants known in Kazakhstan.

Challenges to ensuring environmental sustainability in Kazakhstan include the creation of an effective system of environmental management and protection as well as the establishment of a basis for balanced use of natural resources.<sup>1</sup>

### SPOTLIGHT

#### Harnessing wind power to provide energy services to people in need and put the country on a path toward achieving a sustainable energy system<sup>2</sup>

Kazakhstan is a country in need of more energy services, since a substantial part of the population lacks access to basic energy services for education, cooking and heating. Wind energy provides a clean energy alternative, which does not pollute the environment or contribute to global climate change.

With its vast unimpeded steppes, few countries are better positioned to expand their use of wind energy than Kazakhstan. In 2004, with support from the GEF, a US\$ 2.6 million project began to promote the development of a private wind energy market in the country. By collaborating with the national government and the private sector, which is providing more than \$4.5 million in co-financing, the project has four main objectives. First, to assist the Ministry of Energy and Mineral Resources in formulating a national policy on the development of wind energy, including the creation of financial incentives for renewable power development; second, strengthen national capacity – in both the government and the private sector – to develop and obtain financing for wind energy projects; facilitate the construction of the country's first 5-megawatt 'wind farm' (located in a mountainous area with natural wind tunnels) to demonstrate the feasibility of wind power projects and to increase awareness and support for them; provide lessons and experiences that can be applied to other renewable energy projects in Kazakhstan and other countries.

Multi-stakeholder and multi-sectoral consultations have successfully led to a political commitment to invest in wind energy development to provide more people with basic energy services and put the country on a path toward achieving a sustainable energy system that protects both the local and global environment.

"In recent years, a considerable amount of attention has been given to environmental issues here, both at the national and international levels. The environmental disasters related to the disappearance of the Aral Sea, the nuclear devastation in the Semipalatinsk polygon over several decades, and the rapid decline of the many plant and animal species from Kazakhstan's vast land should remind us all that our actions today can have serious negative consequences for generations to come. Although we have taken some initial steps in improving the health of the country's environment, much remains to be done. We, at the UNDP, are committed to continuing to do our part. Working together, we can create a better world for the benefit of generations to come."- Environment and Development Nexus in Kazakhstan – UNDP publication, 2004 <sup>3</sup>



**Yuriko Skuratowicz, Resident Representative**

## PORTFOLIO

### FSSD\*

UNDP's assistance in Environmental Management provides capacity building support to the Ministry of Environment in responding to environmental management challenges in Kazakhstan. The country is also carrying out the NCSA project to determine the priority needs, and a plan of action, for developing Kazakhstan's capacity to meet its commitments to global environmental management.

### WATER

To address Effective Water governance, UNDP, in partnership with Norway and DFID, is assisting the Government in a water resources management project. The project aims at strengthening the water management organizations through institutionalizing the practice of Integrated Water Management (IWRM). This is done through assisting the Committee for Water Resources to prepare the first National IWRM and Efficiency Plan and eight Basin IWRM Plans for River Basin Organizations, as well as establishing Basin Councils representing the water users.

### ENERGY

Kazakhstan has embarked on a number of initiatives to provide alternative and sustainable sources of energy that would enhance sustainable livelihood of local communities and reduce GHG emissions. The wind energy for water supply project is presented in the project spotlight. UNDP in partnership with CIDA is also assisting in the preparatory phase of the Energy Efficiency programme to develop a full scale project to implement selected energy efficiency measures at a demonstration site. Kazakhstan preparing its Second National Communication under UNFCCC.

### BIODIVERSITY

UNDP with funding from the GEF is supporting the Government to address sustainable use and conservation of biodiversity through a number of interventions. One project demonstrates improved agro-biodiversity conservation at two mountain fruit forest sites which harbour globally significant wild plant varieties. A second project is implemented on three wetlands that are globally significant habitats for water birds and aims to improve policy and regulatory framework to support wetland conservation and sustainable use. Finally, a set of projects demonstrate the conservation and sustainable use of biodiversity.

### CHEMICALS

GEF is assisting Kazakhstan in its efforts to maintain compliance with the Montreal Protocol targeting priority ODS phase-out activities in the refrigeration sector. The initiative includes a refrigerants recovery and recycling sub-project aimed to eliminate ODS in the rigid and flexible foam sectors, eliminate CFC-113 in a solvent production facility, develop a national halon management project, as well as five technical assistance and training components. Capacity development assistance is being provided to government institutions and national enterprises. The GEF is also funding an enabling activity that will result in development of a NIP that will establish the basis for further programmes in POPs management.

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### PARTNERS

#### Some of our Partners working with UNDP and the Government in Kazakhstan

Government of Norway  
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<sup>1</sup>MDGR 2002 [http://www.undg.org/documents/269-Kazakhstan\\_MDG\\_Report\\_-\\_Goal\\_7\\_Part\\_1\\_English.pdf](http://www.undg.org/documents/269-Kazakhstan_MDG_Report_-_Goal_7_Part_1_English.pdf); <sup>2</sup>UNDP-GEF, 'Meeting the Climate Change Challenge, Sustaining Livelihoods', 2004; [http://www.undp.org/gef/undp-gef\\_publications/publications/climate\\_change\\_brochure2004.pdf](http://www.undp.org/gef/undp-gef_publications/publications/climate_change_brochure2004.pdf) and GEF Online database: <http://www.gefonline.org/projectDetails.cfm?projID=783>; <sup>3</sup>From RR quote section in the questionnaire; <sup>4</sup>Frameworks and Strategies for Sustainable Development



## KOSOVO



### Progress Towards Environmental Sustainability

MDG7

Lack of environmental protection together with the conflict in 1999 has worsened environmental conditions in Kosovo. Inadequate urban and industrial planning, lack of industrial and urban waste collection, uncontrolled tree-cutting, and a low level of water recycling are just some of the reasons for the poor state of the environment. Most polluters are not checked or controlled by law enforcement. Kosovo's rivers are among the most polluted in Europe, and the majority of the population is not connected to the public water and sewage system.

According to official data from 2003, Kosovo's forests cover 41% of its land. Compared with countries in the region and Europe in general, Kosovo has one of the largest percentages of forest-covered areas. Despite artificial reforestation undertaken by the Ministry of Environment in the period after the conflict, a lot of illegal cutting continues to go unmonitored.

An uncontrollable increase in the number of vehicles and the low level of waste collection are other main culprits for the increased level of pollution. There is little or no infrastructure for waste collection, and there are not enough designated landfills to meet the demand of all Kosovo inhabitants. Consequently, people resort to non-designated areas to dispose of their garbage. Waste collection is managed by a socially owned company that still does not have the capacity to deal with the magnitude of the task.

In 2003, 44% of the people of Kosovo had access to the public water system; this figure dropped to 7% for rural areas. Similarly, only 28% of the population was connected to the sewage system in 2003, a figure that dropped to 3% for rural people. The biggest problem is in rural areas, where more than 60% of the people were using unprotected and shallow wells in 2003.

### QUICK FACTS

<b>Total UNDP-GEF and Co-Finance:</b>	\$15,070,362
<b>Total UNDP and Co-Finance:</b>	\$5,410,752
<b>Total MPU and Bilateral:</b>	\$9,659,610
<b>Total:</b>	\$30,140,724

Effective environmental surveillance systems as well as increased environmental awareness and access to information are all needed in order to improve environmental sustainability in Kosovo.<sup>1</sup>

## SPOTLIGHT

### Electrification Improves Living Conditions and Promotes Recovery<sup>2</sup>

Over half of all houses in Kosovo suffered damage during the 1998-1999 conflict, according to a post-conflict assessment. Electrical power distribution within Kosovo was also severely affected by both war damage and lack of maintenance of the power lines and transmission equipment. The entire electrical system in Kosovo was almost 40 years old and, in many cases, outdated and inefficient. Consequently, electricity supplies to the towns and villages was so unreliable and of such poor quality that normal economic and social functions were severely disrupted.

Beginning in 1999, UNDP designed the project "Housing and Electrification Programme in Kosovo" (HEIK Project) aimed at restoring basic infrastructure and reviving the damaged communities through rebuilding homes for the most vulnerable families, rehabilitating three electrical distribution networks, and providing training to the Kosovo Energy Corporation in technical and managerial areas. A key element of the project was capacity building of targeted local communities and institutions.

The HEIK project has been very successful in meeting the project goals. 763 houses have been constructed or fully restored throughout 79 villages in Kosovo. Under the electrification component, an immediate impact is most readily experienced by the 4,000 households that have received new service connections. Each of these households now receives the statutory supply voltage of 220V and sufficient capacity to enable the normal operation of lighting, domestic appliances and heating.

The HEIK project has contributed to the recovery and future development of Kosovo by improving basic living conditions in housing, and power supply and distribution, thereby fostering an environment conducive to economic recovery, and creating a situation which will promote the return of refugees and displaced persons to their original communities.

To date UNDP Kosovo has not developed any programmes explicitly designed to address needs on environmental issues or the energy sector. However, by extension through projects such as the Housing and Electrification Kosovo project and the Mother Theresa Square project as well as initiatives like the Kosovo Youth Volunteers some small environment and energy interventions have been initiated.



**Sonja Varga, Resident Representative**

## ENVIRONMENTAL CONCERNS IN KOSOVO AND UNDP'S RESPONSE

### Environmental Concerns in Kosovo and UNDP's Response

Environment in Kosovo did not only suffer from a devastating war, but also from more than fifteen years of administrative negligence. However, with the creation of the Ministry of Environment and Spatial Planning, things are getting better. The most important challenge is to create the proper legal systems and standards to regulate environmental management, in addition to a vast public awareness and education campaign.

The recently completed Environmental Protection Law (EPL), with assistance from United Nations Interim Administration Mission in Kosovo (UNMIK), is one step among many others. The law is a framework based on European standards but still lack many details and directives. However, the law is an important tool to be able to create standards for industry and agriculture over the medium- and long-term. The law also establishes a Kosovo Environmental Protection Agency and a Kosovo Environment Fund.

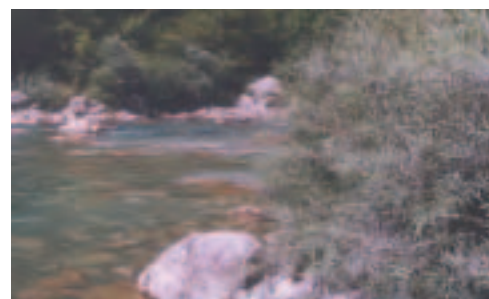
For Kosovo's economy of today to become more self-sustaining, large-scale projects will certainly be needed to develop infrastructure and industry. But they have to be environmentally sustainable as well and it is just such projects, worries the Department of Environmental Protection (DEP), that often carry with them significant environmental side-effects. The key to their sustainability, DEP maintains, is a balance between the development they bring and the short and long-term impact they have on the environment. Properly planned, development projects need not and should not carry with them substantial, detrimental luggage.<sup>3</sup>

UNDP has taken environmental issues in Kosovo from a sustainable development, governance and capacity development angle. For this purpose UNDP has launched its Localizing sustainable development (LoSD) project which aims to provide pilot municipalities with a long-term sustainable development plan. LoSD methodology to the local sustainable development would combine experience in Local Agenda 21 enhancing participatory and strategic approach but also emphasizing practical implementation of activities, decentralization and good governance on the local level, and in socio-economic aspect of the local development.

The UNDP Support to Agriculture Organizations (SAO) project succeeded in creating five cooperatives and gathering in the town of Shtime/Shtimlje where farmers from the Municipality of Skenderaj/Srbica and Shtime/Stimlje presented their products to the media and other stakeholders of the farming sector in Kosovo. Farmers and the heads of cooperatives realized that the creation of the cooperatives will offer them better chances to grow and take a market share.<sup>4</sup>

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## KYRGYZSTAN



### Progress Towards Environmental Sustainability

MDG7

The economic and ecological situation in Kyrgyzstan is largely dependent on the availability and use of its water resources. The country's agriculture is almost wholly dependent on irrigation and water serves as an important export resource. While the country has large reserves of fresh water in rivers, lakes, glaciers, and underground water reserves, careful treatment of water is still needed. Water resource management is far from being optimal. Huge amounts of water resources are wasted due to poorly maintained irrigation and water distribution systems and the practice of inadequate irrigation methods, as well as an absence of water-saving technologies, and systems of water supply lacking in adequate drainage. In recent years there has been an increase in the level of contamination to surface and underground waters, the main cause of which is the poor treatment of industrial and agricultural wastewater. A significant area of small towns and rayon centers are without centralized sewerage systems and treatment facilities.

Soil is also a key environmental resource in Kyrgyzstan. At present the condition of soils in arable areas is critical; more than 88% of agricultural land is recognized as degraded and is subjected to desertification processes; soils subjected to secondary salinization make up 75% of Kyrgyzstan's total arable land.

Kyrgyzstan's pollution woes are a major challenge. In recent years, air pollution has increased, and in 2001 emissions of polluting substances from stationary sources increased by 13% compared to 2000. The major sources of pollution are fuel and energy related industries, in particular, boilers burning coal, and motor transport. Between 2 and 12 times the maximum allowable concentrations of pollutants, such as dust, sulphur oxide, lead, nitrogen, and carbon, are emitted into the airs of the capital and other large cities.

### QUICK FACTS

<b>Total UNDP-GEF and Co-Finance:</b>	\$771,000
<b>Total UNDP and Co-Finance:</b>	\$1,084,980
<b>Total MPU and Bilateral:</b>	\$688,917
<b>Total:</b>	\$2,544,897

Despite the existing understanding of the importance and urgency of environmental issues, there is an acute shortage of state resources necessary for the implementation of environment-oriented activities.<sup>1</sup>

### SPOTLIGHT



#### Water Translates to Energy in Remote Settlement<sup>2</sup>

For the families living in the mountainous region of Djuuky Settlement along the Djuuku River in Kyrgyzstan, the collapse of the Soviet Union brought about a systematic stoppage in fuel delivery and severely reduced availability of electric power. The number of families doubled from 15 to 30 between 1995 and 2005, followed by increased instances of unauthorized logging to meet new energy demands. Endemic flora and fauna has been reduced along with increased soil erosion, creating further environmental distress and a high probability of flooding.

Under the GEF's Small Grants Programme, US\$ 9,770 was obtained in 2002 for the construction of three small hydroelectric power stations on Djuuku River that takes full advantage of the villages' steep, hillside setting. The funding was also used to plant 15,000 willows and poplars for long-term building and resource management. Under the guidance of a local NGO and a technical group from the Kyrgyz Slavic University, as well as considerable community involvement (labour, property, and finance), the hydropower construction and tree plantings demonstrated key linkages between economic activity and conservation of biodiversity, fostering the beginning of greater environmental awareness in the community. The local peoples' commitment to construction and preservation reflected their large stake in the project.

The settlement's newfound energy independence has had a dramatic financial, social, and environmental impact on the families. Women and children are participating in thermal insulation of housing, reducing wood consumption and increasing energy conservation in the area. Additional cost savings have been generated as less time is now spent traveling to find wood resources. Electric stoves and boilers are now in use, and greater free time is available for parents to prepare children for school. Families are now able to acquire radios and television sets, and even have sufficient energy to power them!

Kyrgyzstan is located in an active seismic zone, suffers from deforestation, and a high rate of water loss. The fragile and deteriorating environment of the Kyrgyz Republic poses a considerable threat to human security.<sup>3</sup> "GEF/SGP and LIFE programmes are targeted to link poverty and environmental issues on the community (urban and rural) level. National Sustainable Development Committee and National Sustainable Development Strategy will be directed to solve not only environmental issues, but social and economical issues." - Jerzy Skuratowicz, UNDP Resident Representative



**Jerzy Skuratowicz, Resident Representative**

## PORTFOLIO

### FSSD\*

UNDP is supporting the Ministry of Ecology and Emergencies to address environmental management challenges through its LIFE programme with a primary objective to promote and demonstrate participatory community based solutions to environmental problems and help influence policies. LIFE is funded by UNDP, BRD, and the Governments of Sweden and Netherlands. Empowering civil society for the participation in implementing National and Regional Environmental Action Plans and Sustainable Development Strategies is another key area of UNDP's support through the CARNet's project. Kyrgyzstan is also carrying out its NCSA process for environmental capacity building.

### ENERGY

The Second National Communication (SNC) is a continuation of the activities undertaken within the preparation of the Initial National Communication (INC) and Technology Needs Assessment. The project enables Kyrgyzstan to implement its obligations under the UNFCCC and prepare its SNC to the Conference of the Parties, with support from the Nordic Trust Fund. The Government is implementing the Renewable Energy Driven Pumps System in Rural Areas in Issyk Kul and Naryn.

### LAND

The overarching goal of the GEF-funded Mountain Pasture project is the introduction of sustainable rangeland management practice on an experimental example in valley of Suusamy. CIDA, UNDP and the Global Mechanism are supporting the Temir Village Rangeland Management project's with a goal to demonstrate the efficacy of community based natural resources management as a means for meeting the dual objectives of improved environmental stewardship and poverty alleviation

### BIODIVERSITY

The Issyk-Kul lake is a Ramsar site of globally significant biodiversity and the site of a Biosphere Reserve. The GEF supported conservation project site contains endemic ichthyofauna biodiversity, some of which are highly endangered. The objective of the project is to make the fishing activity in the Issyk-Kul lake biodiversity friendly and sustainable. The Third National Report to the National Biological Diversity Conservation Strategy and Actions Plan of the Kyrgyz Republic will consider legal and institutional changes, sustainable use of biological resources and cross-sectoral cooperation and interactions

### CHEMICALS

MLF funding has made possible the development and successful execution of a UNDP Montreal Protocol assistance programme in Kyrgyzstan that supports national efforts to meet ODS phase-out targets. National capacity is being strengthened in the refrigeration and methyl bromide sectors. In the former, UNDP is assisting through an awareness and incentive programme to encourage elimination or retrofitting of existing ODS-based equipment, accompanied by establishment of a monitoring system. In the latter, support is provided through the implementation of a technical assistance project that proposes the transfer of suitable MB alternatives and their adaptation to local conditions, complemented by relevant policy development, training and awareness raising.

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### PARTNERS

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Government of The Netherlands      Government of Sweden  
Environment and Security Initiative  
Demonstration Zone of Energy and Water Efficiency Bishkek  
Mountain Partnership Secretariat  
International NGO: Snow Leopard  
Global Mechanism  
Nordic Trust Fund  
OSCE    OECD    UNU    UNEP    FAO    CIDA    SDC

<sup>3</sup>MDGR 2003 <http://www.undp.kg/english/publications/2003/mdgr2003.pdf>; "Kyrgyzstan Energy Case Study; GEF Small Grant Programme," Introduction of Autonomous Renewable Source of Energy in Djuuky Settlement"; SGP Online database: <http://sgp.undp.org/index.cfm?Module=Projects&Page=ShowProject&ProjectID=5429>; [http://www.undp.org/documents/1730-Kyrgyzstan\\_CCA\\_-\\_2003.doc](http://www.undp.org/documents/1730-Kyrgyzstan_CCA_-_2003.doc); "Frameworks and Strategies for Sustainable Development



## LATVIA



### Progress Towards Environmental Sustainability

MDG7

Latvia's total energy consumption is the lowest in the European Union – 2,600/kWh per capita per year due to several factors. Latvia has no energy-intensive industrial sub-sectors, and services make up the largest sector of the national economy (72.7%). Also, the relatively low incomes of the population restrict private consumption.

One of Latvia's priorities is to reduce the volume of ozone-depleting greenhouse gases emitted by transportation vehicles. This will be achieved through efficient use of energy resources. At present, decoupling is weak: pollutant emissions are increasing and energy consumption is not significantly declining. To meet EU requirements, Latvia must reduce total greenhouse gas emissions by 8% as compared to 1990. It is quite likely that Latvia will meet this requirement by applying energy efficiency measures, carrying out clean-technology projects and trading emission quotas.

Over-fishing of the main industrial fish species (sprats, herring, cod, salmon) and unfavorable conditions in the Baltic Sea in recent years have contributed to a reduction of fish stocks. This means smaller catches and negative economic and social indicators.

Although globally the proportion of land area covered by forests shrank to 30% in 2000, in Latvia 45% of the country is covered by forests. Latvia is one of the most wooded countries in Europe, with per capita forest area exceeding the European average 4.5 times. Forests play a major role in the Latvian economy, as they reduce the concentration of carbon dioxide in the atmosphere, and they provide opportunities for recreation.

Up until 2001, there were 243 protected areas in Latvia, which covered 8.9% of the country. In 2001–2004, the proportion of protected areas increased by 3.2%. In 2004, the protected area network in Latvia incorporated 337 protected areas, 295 natural monuments, and 649 micro reserves.

## QUICK FACTS

<b>Total UNDP-GEF and Co-Finance:</b>	\$46,477,309
<b>Total MPU and Bilateral:</b>	\$20,000
<b>Total:</b>	\$46,497,309

**Cumulative Total ODS Phased-Out:** 224 ODP tonnes

The European Union has launched a long-term process to ensure sustainable development, with special focus on the use of renewable energy resources, and the integration of environmental questions into other sectoral policies, laws and funding regulations. Other important initiatives for environmental sustainability in Latvia are: development of science and research, introduction of entrepreneurs to best practice, ecolabelling, green procurement and environmental analysis systems, redistribution of the tax burden, introduction of higher taxes on natural resources and other economic instruments to increase the efficiency of resources.<sup>1</sup>

## SPOTLIGHT



### Phasing-out POPs to protect the environment and human health<sup>2</sup>

Persistent organic pollutants, or POPs, are chemicals such as pesticides, industrial chemicals, and unwanted by-products of industrial processes or combustion. These chemical substances circulate globally, and can cause cancer, damage people's immune systems, and tarnish species and ecosystems, both adjacent to and distant from their emission source. The Stockholm Convention was adopted in 2001 to protect human health and the environment from POPs. UNDP seeks to assist developing countries in building the technical capacity to properly destroy obsolete stocks of POPs and remediate POPs-contaminated sites.

UNDP-GEF is currently assisting Latvia to meet its obligations under the Convention, by phasing-out POPs and managing contaminated areas in an environmentally sound manner. A GEF-supported project of US\$ 378,600 was provided for two years commencing in 2002 to assist the Latvian Government to develop its POPs National Implementation Plan (NIP) under the Stockholm Convention. The main objectives of the project are to create sustainable capacity and ownership in Latvia to effectively manage POPs chemicals and wastes, while simultaneously supporting awareness raising in the general population on understanding the negative impact of POPs on human health. Project activities include: legal assessment and awareness raising, compilation of initial inventories and capacity assessment, POPs elimination priority setting, evaluation of management options and drafting of and national endorsement of the NIP. The project also enabled the first research to be conducted in Latvia on levels of dioxins and PCBs in breast milk.

Under the project, POPs and PCB pesticide polluted and potentially polluted site assessments and evaluations have been conducted and a public-awareness campaign on POPs was completed in June 2004. In addition, a nationwide campaign against burning of old grass was conducted in cooperation with the Ministry of Interior and the Ministry of Environment to reduce emissions of dioxins into the atmosphere. Finally, the NIP was adopted by the Latvian Cabinet of Ministers in March 2005, and is the first to be posted on the Stockholm Convention website.

Latvia has addressed the issue of integrating the environment into other sectors in its National Environmental Policy Plan. In this context, it has continued to implement the action programme for sustainable development. UNDP assists Latvia in raising national capacity for the implementation of international climate change conventions and promoting biodiversity with the support of GEF. The country's environmental protection control system has been strengthened and administrative capacity has been increased, particularly at the regional and local level.



**Inita Paulovica, Officer in Charge**

## PORTFOLIO

### FSSD\*

GEF is working to help Latvia's NCSA identify priorities and needs for capacity development in Latvia in order to address global environment issues. The sustainable institutional system created will ensure continuity of the capacity building needs assessment in a comprehensive and systematic way. GEF and UNDP are also working to support the development of capacities in education and research for strengthening global environmental management in Latvia.

### ENERGY

GEF supports renewable energy initiatives in Latvia which have facilitated the development of financially and environmentally sustainable energy companies in 14 municipalities to transform from the use of heavy fuel oil to biomass. A solid knowledge base has been built for continued work on building public awareness for residents and an excellent training program implemented on sustainable energy initiatives for technical and administrative personnel in municipalities. A billing system pilot project was developed and replicated; a national strategy on renewable district heating was developed. Knowledge from the UNDP-driven project is being used as a basis for the development of further projects in the area of renewable energy.

### LAND

GEF is supporting the creation of sustainable capacity and ownership in Latvia to mitigate land degradation and thereby meet the country's obligations under UNCCD. It focuses on capacity building in particular and the removal of key barriers to sustainable land management in Latvia.

### BIODIVERSITY

GEF biodiversity projects have promoted sustainable use of natural resources, at the same time protecting nature by regulating nature protection at the State, municipal and public levels to ensure implementation of international commitments which also contribute to sustainable human development. The development of a biodiversity strategy and action plan under GEF formed the basis of the National Biodiversity Programme adopted by the Government in 2000. The GEF also supported the development of a monitoring programme and the preparation of the First, Second and Third National Reports to the CBD. UNDP and GEF are working to ensure conservation of globally significant biodiversity in the North Vidzeme Biosphere Reserve by implementing a set of initiatives required to integrate biodiversity conservation principles and practices into the planning, management and sustainable use of the Reserve.

### CHEMICALS

As part of its support programme to ensure compliance with Montreal Protocol measures, UNDP is assisting Latvia through implementation of a GEF-funded project that provides technical assistance and provision of ODS-friendly equipment to enterprises that represent the bulk of the ODS consumers in the country. In addition, the GEF is also funding an enabling activity project for Latvia. The project has achieved the development of a National Implementation Plan for POPs in March 2005. Latvia is also participating in a regional GEF-funded project, managed by UNEP in partnership with UNDP, that aims to rapidly phase-out all non-exempted uses of methyl bromide (MB). Latvia is one of seven countries involved in a global GEF project aimed at reducing environmental release of dioxins and mercury by demonstrating and promoting best techniques and practices for reducing and managing health care waste.

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### PARTNERS

#### Some of our Partners working with UNDP and the Government in Latvia

EU  
Government of The Netherlands  
Denmark  
Ministries of Environment, Agriculture, Regional Development and Local Authorities, Economy, Health  
Latvian Environment Investment Fund

\*MDGR 2005 [http://www.undg.org/documents/6160-Latvia\\_MDG\\_Report.pdf](http://www.undg.org/documents/6160-Latvia_MDG_Report.pdf); †UNDP POPs website: [http://www.undp.org/gef/undp-gef\\_focal\\_areas\\_of\\_action/sub\\_persistent\\_organic\\_pollutants.html](http://www.undp.org/gef/undp-gef_focal_areas_of_action/sub_persistent_organic_pollutants.html); \*UNDP Latvia Project Document; GEF Online database: <http://www.gefonline.org/projectDetails.cfm?projID=1668>; \*Frameworks and Strategies for Sustainable Development

## LITHUANIA



### Progress Towards Environmental Sustainability

MDG7

Increasing land urbanization, along with new economic priorities, has changed the structure of the Lithuanian territory during the past 13 years. For centuries the prevailing structure of the landscape had been agrarian with varying degrees of forest coverage. As of January 2003, 60.7% of the Lithuanian landscape was dedicated to agriculture, while 30.1% remained as forestland.

Over the years, increasing land privatization (at a rate of 3%-5% per year) resulted in increasing urbanization and fragmentation of the land. By 2002, 43% of Lithuanian territory was privately owned. Swift economic development and a growing GDP, as well as favorable loan conditions, facilitated a 38.9% increase of urban territory in 2002 alone (from 933,300 hectares in 2001 to 1,296,430 hectares in 2002).

Actions taken to protect the land and Lithuania's biodiversity have led to positive results. During the past 13 years, the Lithuanian territory under protection has increased from 4.7% to 12.0%. In 2002, the area under protection increased by 11,460 hectares, which was mainly due to the establishment of the Zuvintas Biosphere Reservation.

In addition, Lithuania plans to implement NATURA 2000, a European Union (EU) Nature Conservation policy, which aims to expand a network of protected areas covering fragile and valuable natural habitats and species of particular importance for the conservation of biological diversity within the territory of Lithuania and the EU.

Water management, especially wastewater treatment, is a key priority of the National Environmental Strategy and Action Plan of Lithuania. In light of this, the promotion of cleaner production principles in industry is particularly important because swift economic developments will increase the use of water in industry and other sectors, which in turn will increase the quantity of wastewater discharged into surface waters.

Further policy actions are needed, however, to implement a river basin management system and to promote ecological farming, sustainable consumption, and other measures for decreasing water consumption and pollution. Continuous building of the competence of civil servants and raising the public's environmental awareness also constitute important elements in the task to ensure environmental sustainability in Lithuania.<sup>1</sup>

### QUICK FACTS

<b>Total UNDP-GEF and Co-Finance:</b>	\$26,333,700
<b>Total:</b>	\$26,333,700
<b>Cumulative Total ODS Phased-Out:</b>	368 ODP tonnes

### SPOTLIGHT



#### Phasing-out POPs to Protect the Environment and Human Health<sup>2</sup>

Persistent organic pollutants, or POPs, are chemicals such as pesticides, industrial chemicals, and unwanted by-products of industrial processes or combustion. POPs circulate globally and can cause cancer, damage people's immune systems as well as species and ecosystems both adjacent to and far away from their sources. The Stockholm Convention was adopted in 2001 to protect human health and the Environment from POPs. UNDP seeks to assist developing countries in building the policy, programme and technical capacity to properly destroy obsolete stocks of POPs and remediate POPs contaminated sites.

The GEF funded assistance initiative that UNDP is implementing in partnership with Lithuania aims at increasing the country's capacity to comply with the Stockholm Convention agreements. US\$381,400 have been allocated towards establishment of national systems and mechanisms including detailed inventory development. Programme activities were designed based on the findings of a thorough needs assessment, including the review of the existing legal framework.

The project has successfully conducted reports of inventories and an analysis of dioxin/furans. In addition, in terms of training and awareness-raising, 40 representatives from various public and private sector institutions attended a training session on how to develop and compare management options for the various prioritized NIP action plans, while during the first quarter of 2005 awareness-raising activities, including 12 seminars, questioning of stakeholders and 3 television programmes have been successfully organized to increase understanding of the negative impact of POPs on human health.

# CHEMICALS



UNDP provides support to investigate alternative energy possibilities, manage wetlands and conserve biodiversity, implement SGP<sup>3</sup> allowing local NGOs and communities to promote sustainable development.<sup>4</sup> “The SGP could be considered as the largest international assistance programme in the country uniting different social partners within projects implemented by NGOs that aim at conserving biological diversity resources, mitigating dangerous effects of climate change, and preventing international waters from pollution. [SGP’s] Innovative thinking, trust and cooperation alongside with sustainable development principles are providing local people with practical solutions for enhancing their livelihoods while protecting global environmental quality.”



## PORTFOLIO

**Cihan Sultanoglu, Resident Representative**

### FSSD\*

The NCSA project aims to identify, through a country-driven consultative process, priorities and needs for capacity development to better address global environmental management issues.

### BIODIVERSITY

Lithuania is implementing a programme to address biodiversity conservation and sustainable use through its UNDP/GEF inland wetland biodiversity conservation project. The main objectives of this project are to demonstrate improved wetland management at five sites of regional significance, and second, to institutionalize the lessons learned and best practices through a formal intersectoral mechanism to be replicated at other wetland sites throughout Lithuania.

### CHEMICALS

As part of its support programme to ensure compliance with Montreal Protocol measures, UNDP is assisting Lithuania through implementation of a GEF-funded project that provides technical assistance and provision of ODS-friendly equipment to enterprises that represent the bulk of the ODS consumers in the country. In addition, the enabling activity project aims at developing a National Implementation Plan for POPs. Lithuania is also participating in a regional GEF-funded project, managed by UNEP in partnership with UNDP that aims to rapidly phase-out all non-exempted uses of methyl bromide (MB). The project addresses the key barriers that have prevented the adoption of MB alternatives to date by providing training, resources to assist the procurement and installation of alternatives, and policy development and capacity building.



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<sup>1</sup>MDGR 2004 [http://www.un.lt/images/development\\_report/Goal7.pdf](http://www.un.lt/images/development_report/Goal7.pdf); <sup>2</sup>UNDP POPs website: [http://www.undp.org/gef/undp-gef\\_focal\\_areas\\_of\\_action/sub\\_persistent\\_organic\\_pollutants.html](http://www.undp.org/gef/undp-gef_focal_areas_of_action/sub_persistent_organic_pollutants.html); UNDP Lithuania Project Document; GEF Online database: <http://www.gefonline.org/projectDetails.cfm?projID=1846>; <sup>3</sup>Small Grants Programme; <sup>4</sup><http://www.undp.lt/en/index.html?id=15>; <sup>5</sup>Frameworks and Strategies for Sustainable Development





SPOTLIGHT

Emergency Response to Mine Tailings Pond Leak<sup>1</sup>

The River Kamenicka rises in the valleys of Eastern Macedonia just west of the Bulgarian border and drains into the Kalimanci Reservoir, supplying neighbouring towns with drinking water, and irrigation for approximately 25,000 hectares of farmland. In August 2003, a spillage of 270,000 cubic metres of mine tailings – fine sand remnants from the chemical extraction of lead and zinc – from the "Sasa" mine in Makedonska Kamenica occurred with much of the tailings settling along the riverbed and banks of the Kamenicka River. If not immediately addressed, the spill and subsequent oxidation would have released the heavy metal remnants into the sediment causing irreparable harm to local water supplies.

UNDP responded to the immediate environmental emergency with financial assistance totalling US\$ 50,000 towards technical efforts and strategy plans to mitigate the possible negative impacts. The 6-month Emergency Response to Mining Tailing Spills in Kamenicka River project supported the Ministry of Environment and Physical Planning (MoEPP) with an assessment of the extent of physical damage and identified environmental, economic and social risk factors. UNDP, MoEPP, and the local unemployment bureau from Makedonska Kamenica jointly selected a group of 80 workers to engage in the clean-up activities in the affected areas.

Brochures and leaflets containing information on tailing ponds, the accident in the Sasa Mine and risk factors such as threats to human health and the health of domestic animals, were published and disseminated to the affected residents, NGOs, the local government and MoEPP. Recommendations on how to mitigate these risks were also published and distributed throughout the region. While the affected area was successfully cleaned up by mid-2004, UNDP also supported the MoEPP in organizing a donor coordination meeting to mobilize additional resources for future monitoring and evaluation.<sup>2</sup>



WATER

QUICK FACTS

Total UNDP-GEF and Co-Finance:	\$790,400
Total UNDP and Co-Finance:	\$409,890
Total:	\$1,200,290



The Government of Macedonia is committed to address the country's environmental issues as part of an overall strategy for economic and social development. Key focus areas include: improving air quality, addressing water concerns, increase the effectiveness of waste management systems, and conserve biodiversity.<sup>1</sup> "UNDP fully supports our national partners in meeting its global environmental obligations. We will continue to assist the process of strengthening the national policy framework and capacities for environmental management and sustainable development, while also facilitating regional and transboundary cooperation. Successful tackling of these issues, will be another big step forward on the country's path towards EU integration."

**Frode Muring, Resident Representative**

## PORTFOLIO

### FSSD\*

UNDP is supporting the Government of Macedonia through the Ministry of Environment and Physical Planning to anchor the concept of sustainable development in the policies of the country. The overall objective of the NCSA process is for the Government of Macedonia to undertake an assessment of its capacity to meet its obligations under the global environmental conventions.

### WATER

Untreated solid waste can always pose a threat to underground water resources. To alleviate the threat of water pollution, UNDP is supporting local initiatives for solving the solid waste problem in the rural communities of the Prespa Park region through the establishment of a sustainable solid waste management system, and increase the awareness and knowledge of the local communities on waste minimization and treatment practices. The project activities will be complementary to the UNDP-GEF Prespa Park project and is supported by the Swiss Agency for Development and Cooperation.

### ENERGY

GEF is assisting Macedonia with the preparation of the First and Second Communication to UNFCCC. The main components of the project are an inventory of GHG Emissions, an assessment of potential impacts of climate change on the most vulnerable sectors, an analysis of potential measures to abate increase of GHG emissions, and a National Action Plan. The projects will further enhance the national capacities and increase the general knowledge on climate change issues.

### BIODIVERSITY

Macedonia is approaching the conservation and sustainable use of biodiversity resources by promoting integrated ecosystem management of the trans-boundary Prespa Park (Albania, Macedonia and Greece). The approach of this initial intervention which would lead to a comprehensive solution aims to conduct the necessary technical assessments, enhance coordination mechanisms and involve the wide range of stakeholders.

### CHEMICALS

Development of a MSP for Stabilization of POPs in Landfills and Preparation for Disposal in the Republic of Macedonia

Description: The outcome of this PDF A will be a GEF Medium sized project to address potential contamination from existing landfills containing POPs/OCF contaminated wastes. The sites will be classified, numbered and indexed in such a way as to enable the preparation of the final waste disposal/destruction and/or remediation procedures and identification of costs.

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### PARTNERS

**Some of our Partners working with UNDP and the Government in Macedonia**

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<sup>1</sup>UNDP Macedonia website, 'Emergency Response to the Tailings Pond Failure at the Lead and Zinc Mine "Sasa", Makedonska Kamenica, Eastern Macedonia'; <http://www.undp.org.mk/Default.asp?where=focusarea&project=47>; <sup>2</sup>[http://www.undg.org/documents/3328-Macedonia\\_CCA\\_-\\_Macedonia\\_CCA\\_2003.pdf](http://www.undg.org/documents/3328-Macedonia_CCA_-_Macedonia_CCA_2003.pdf) Page 35 and 39; <sup>3</sup>Frameworks and Strategies for Sustainable Development

## MOLDOVA

### Progress Towards Environmental Sustainability

Moldova is a unique country due to its geographical position, climate, geological conditions, relief and soil composition. It is a country often hit by natural disasters such as floods, torrential rains, hail, strong winds, landslides, droughts, frosts and earthquakes.

A high percentage of the population depends heavily on soil exploitation. At present, soil erosion threatens agricultural lands, leading the surface of eroded land to increase each year by 0.9%, which means that farming lands lose 26 million tons of fertile soil annually.



Moldova's forests cover 349.5 thousand hectares, which represent 10.3% of the country's territory. While the main function of these forestlands is to maintain a good ecological equilibrium and to protect the environment, the rate of forested land is not rapid enough to fulfill this function effectively. Together with other natural and anthropogenic factors, deforestation in Moldova has resulted in a high level of soil erosion, land slides, degradation of aquatic resources, and droughts.

At present, more than 50% of Moldova's population consumes water that does not fulfill sanitary norms. This is mainly the result of exhaustion and degradation of quality aquatic resources, as well as the lack of and the poor conditions of systems and technologies used to treat water. About 81% of the urban population and 17% of the rural population benefit from centralized systems of water supply. 67% of rural establishments' aqueducts do not meet hygienic standards. Mayoralities and collective associations, who manage the centralized systems of water supply, do not have the necessary material resources and qualified staff.

Moreover, many citizens, due to low income, are unable to pay the cost of these services. Such challenges will need to be addressed if Moldova is to make further progress in achieving MDG 7 for environmental sustainability.<sup>1</sup>

### QUICK FACTS

<b>Total UNDP-GEF and Co-Finance:</b>	\$250,000
<b>Total UNDP and Co-Finance:</b>	\$1,136,210
<b>Total MPU and Bilateral:</b>	\$198,495
<b>Total:</b>	\$1,584,705

**Cumulative Total ODS Phased-Out:** 29.1 ODP tonnes

### SPOTLIGHT



#### Sustainable Development Rehabilitates Urban Environment<sup>2</sup>

UNDP is supporting Moldova to improve the environment in urban areas, where youth poverty and exclusion is widespread and increasing, leading to risky behaviours, such as violence and crime, and alcoholism and drug abuse. Moldova is therefore working to improve the living conditions, the quality of its urban environment and investment in human capital. Youth and family centres play a significant part in this process by providing safe places for constructive free-time activities, such as sports, and provide quality information, internet access and computer skills.

In 2001, UNDP implemented an urban environmental improvement project, and in 2005 the first Family Centre was opened in the Sculeni district of Chisinau, comprising a modern sports centre with golf and basketball fields targeting school children and students, as well as families. The Family Centre project is one of over ten partnerships created and supported by UNDP in the framework of the "Mesmerizing Moldova" project, which is working to strengthen the country's capacity to incorporate sustainable development principles of human settlements into the national policy and strategies towards reducing poverty in urban areas. Such partnerships aim at contributing to sustainable urban development by applying an integrated approach towards issues such as environmental rehabilitation of urban areas, job creation and improved access to services and a healthy life.

The project has been successful due to its collaborative nature. In addition to UNDP's contribution, the project would have not been possible without the support of the business community and Chisinau City, which set apart an area of land for this purpose back in 2001. Due to the relative ease of replication of this project, similar centres will soon open in other major cities in Moldova.

## STRATEGIES

Energy and Environment programs are being implemented to reduce consumption of ODSs, assess environmental practices, and sustainably manage land. UNDP also promotes environment-friendly technologies and production processes, harmonization of the national environmental legislation to European standards, and the utilization of renewable energy resources. Through funding by GEF, UNDP Moldova is conducting a capacity self-assessment in order to identify priority actions and needs towards the improved global environmental management in the areas pertaining to the three Rio conventions: UNFCCC, UNCBD, and UNCCD.<sup>3</sup>



## PORTFOLIO

**Bruno Pouezat, Resident Representative**

### FSSD\*

UNDP is supporting Moldova in designing its Strategic Environmental Assessment (SEA) process to develop the SEA Capacity Development Manual in Romania. The NCSA provides support for the identification through a country-driven consultative process of priorities, needs, and constraints for capacity building in order to reinforce the synergetic effect and meet obligations under the three Rio global environmental Conventions towards the protection of global environment.

### LAND

Sustainable Land Management is a concern where the GEF has launched a preparatory process to assess the feasibility of a programme towards improved use of natural resources with an impact on poverty reduction and improved livelihoods in rural semi-arid area of Moldova.

### CHEMICALS

The Government of Moldova and UNDP are working together in implementation of the refrigerant management plan through a technical assistance programme that makes available incentives to industrial and commercial companies to convert or retrofit their CFC-based installations. In addition, the project supports recovery and recycling initiatives for the mobile air-conditioning sub-sector.



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### PARTNERS

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<sup>3</sup>MDGR 2005 [http://www.undp.md/publications/doc/Millennium\\_ENG.pdf](http://www.undp.md/publications/doc/Millennium_ENG.pdf); \*Petruschevski, M., "Anytime, For Anyone", UNDP Moldova; UNDP Moldova website: <http://www.undp.md/focus%20areas/demogover/>; Habitat Moldova website: <http://www.habitatmoldova.org>; <http://www.undp.md/focus%20areas/energy/>; [http://www.undg.org/documents/1644-Moldova\\_UNDAF\\_-\\_Moldova\\_2001.doc](http://www.undg.org/documents/1644-Moldova_UNDAF_-_Moldova_2001.doc); \*Frameworks and Strategies for Sustainable Development



## POLAND



### Progress Towards Environmental Sustainability

MDG7

In tackling environmental sustainability, Poland considers the national strategy for sustainable development prepared in 2000 only a primary basis for embarking on improvement of the environment. Hence, additional indicators have been used to describe trends in the pressure exerted on the environment such as: energy consumption; water quality and quantity; emissions of dioxides and particular matters; and wastewater treatment. Although Poland has prepared a long-term strategy for sustainable development entitled "Poland 2025", no quantified targets were adopted.

Environmental pressures were consistently reduced during the 1990s. This refers, in particular, to the reduction of particulate and gaseous emissions to the atmosphere. Since 1996, the generation of each GDP unit involved a diminishing amount of pollutants discharged into the environment and a diminishing consumption of natural resources.

From 1990-2000, the proportion of homes with water supply facilities kept growing steadily. The share of homes lacking connection to water mains was falling by approximately 0.5% per annum. The rate of change was faster by 1.41% and 0.21% in rural and urban areas, while the goal is to reduce by 3.5% and 24% the number of urban and rural homes without connection to the water mains network by 2015, respectively.

Poland's contacts on the international forum, in particular with international institutions as the European Union, OECD, EEA, Eurostat, UNCSD and the World Bank are the driving force in the field of environmental protection. Implementation of international agreements and aid programs related to environmental protection has been progressing successfully. Functioning of the National Environmental Protection Fund and the EkoFund are positive examples of the appropriate utilization of foreign aid. However, the active involvement of the local society is essential to enhance environmental protection. Poland needs to work on the creation and operation of social, self-governmental and non-governmental organizations.<sup>1</sup>

### QUICK FACTS

<b>Total UNDP-GEF and Co-Finance:</b>	\$39,400,654
<b>Total:</b>	\$39,400,654

### SPOTLIGHT

#### Bicycling Reduces GHGs, Improves People's Health and the Environment<sup>2</sup>

The increased economic prosperity of the city of Gdansk is accompanied by an increase in the use of motorized vehicles and emissions. Concerned about the effects on their local environment, health and the global climate, the people of Gdansk wanted to encourage bicycling, particularly in commuting to work, to help reduce local air pollution and its negative impacts.

To increase cycling in Gdansk, UNDP is implementing the Gdansk Cycling Project, developed by the Municipality of Gdansk and a local organization, the Polish Ecological Club. The project, financed with US\$ 1 million from the GEF and \$1.5 million in co-financing, is constructing a core network of cycling facilities and paths. To date 12 km of bicycle paths are completed or under construction with another 20 km planned. Other activities include measures to reduce traffic speed using speed bumps, strict speed limits and public outreach and information campaigns to encourage cycling. The number of people in Gdansk that are now cycling as a result of the project has so far increased by 100%. In terms of helping to combat global warming, the project is expected to reduce CO2 emissions by 250,000 tonnes over ten years.

The success of this local initiative is due to the cooperation of the Gdansk Municipality, the participation of NGOs and UNDP-GEF. The commitment of the Gdansk people to the project is evident, as 60% of the city's population now participates in ride-share or other programmes to promote reduced traffic congestion and GHG emissions. As a result, cycling in other Polish cities is being encouraged through information campaigns, and internationally, the project was presented at the World Conference on Transport Research in Istanbul.

# ENERGY

UNDP supports Poland's efforts to comply with its international agreements and their respective protocols, while strengthening its environmental management practices. Programmes are in place to reduce carbon emissions by using sustainable energy sources for fuel, rather than relying on coal. Furthermore, infrastructure is being designed for energy efficient transportation and manufacture. UNDP is also developing a knowledge base to disseminate knowledge gained from successful projects to other locations in Poland.



**Anna Darska, Deputy Resident Representative**

## PORTFOLIO

### ENERGY

Polish Energy Efficient Motors Programme is a major undertaking supported by the Polish National Energy Conservation Agency, GEF, and Polish Foundation for Energy Efficiency/Polish Copper Promotion Centre. The programme aims at removing barriers to improve energy efficiency in electric motors and operating systems. The Wood Waste Combustion project, working with local and national governments, will reduce GHG emissions in Poland by removing barriers to the creation of a viable wood waste market offering clean energy and eliminate the existing coal powered solid fuel boilers. The Gdansk bicycling programme is featured in the project spotlight.

### CHEMICALS

Poland is participating in a regional GEF-funded project, managed by UNEP in partnership with UNDP, that aims to rapidly phase-out all non-exempted uses of methyl bromide (MB). The project addresses the key barriers that have prevented the adoption of MB alternatives to date by providing training for MB users, resources to assist the procurement and installation of alternatives, and policy development and capacity building. The project will transfer and install existing MB alternatives. It will also build capacity and carry out pilots to ensure the ongoing adoption of environmentally sustainable alternatives in the longer term.



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## ROMANIA



### Progress Towards Environmental Sustainability

Romanian forests are annually affected by numerous biotic and abiotic factors. Plant health statistics show that about 20% of the forestry fund area is under threat annually. The clearance of forests, which causes erosion and turns mountainsides arid, has also led to the degradation of the Romanian forests. In 2002, forests covered an area of 6,835 thousand hectares, which represents 27% of the country's territory; this proportion is below the European average of 33%.

Since Romania's forest area is below this European average, strategic actions for long and medium term reforestation of agricultural lands, approximately 2 million hectares, are required. According to the long-term forest development strategy designed by the Ministry of Agriculture, Forestry, Waters and Environment (MAFWE), the main goal is to accelerate reforestation from the current rate of 27% to 35% of the country's surface area, in the coming 37 years. Approximately 2.5 million hectares of agricultural lands are highly eroded and require reforestation. The present policy aims to reforest 25,000 hectares per year.

Greenhouse gas emissions dropped from approximately 271 million tons of CO<sub>2</sub> in 1989 to 147 million tons in 2000, due to economic recession. The goal to reduce CO<sub>2</sub> emissions by 8% by 2008-2012 is therefore expected to be achieved.

Studies show that the current water demand in Romania, which is 20.4 billion cubic meters per year, will rise to approximately 27 billion cubic meters per year during 2005-2010 and to 32-35 billion cubic meters per year during 2020-2025. Given the social and legal changes that have occurred in recent years, the urban and rural population are expected to grow. Yet, the increase by 100% of the proportion of people with sustainable access to drinking water by 2015 is an achievable target for Romania. This target was set as an intermediary milestone in the plan aiming at ensuring a minimum household comfort by 2020 by connecting 99% of the urban population and 85% of the rural population to local water supply networks.<sup>1</sup>

### QUICK FACTS

<b>Total UNDP-GEF and Co-Finance:</b>	\$1,885,835
<b>Total:</b>	\$1,885,835

### SPOTLIGHT

#### Financial and Human Resource Developments Lead to Energy Efficiency Investments<sup>2</sup>

Romania's energy intensity has been among the highest in its region and has been 5-10 times higher than in the UK, France, Germany, or the U.S. The country has been lagging behind in energy efficiency and needs to catch up with the rest of Europe as part of its bid for EU membership in 2007. The Romanian Agency for Energy Conservation is responsible for promoting energy efficiency but has had very limited financial and human resources to combat this problem.

The UNDP/GEF Energy Efficiency Financing Project begun in 2003 is a practical approach to address Romania's lack of investment in the field of energy efficiency. The Energy Efficiency Financing Team, a core team of banking and energy specialists, uses small amounts of grant financing to leverage large amounts of commercial financing for energy efficiency investments in Romania. The team works closely with banks to identify qualified energy efficiency investments for support from the project. The team adopted a simple, 3-stage approach. First, project identification; second borrowers and lenders are introduced, bringing in additional stakeholders as required, creating an outline deal, and achieving an 'Agreement-in-Principle' between lenders and borrowers. The third stage is the completion, where project resources are used to help borrowers meet the banks' lending requirements to complete the deal.

Support provided by the project includes business plans, financial analysis, feasibility studies, energy audits, due diligence and identifying additional resources such as insurance, guarantors or investors. Energy efficiency stakeholders and banks put together complex financial deals, gaining a great deal of knowledge and experience, which is complemented by capacity building training and workshops. In the first quarter of 2005, applications for support rose by 15 to 235. The project has so far leveraged 14 investment projects with a combined value of over US\$ 23 million.



UNDP is working to strengthen the national capacity to improve the sectors of environmental degradation and enhance energy efficiency in Romania. Scarcity of natural and biological resources, and energy derived from natural resources restrict enhancement of livelihoods, increase vulnerability, and impact well-being in a number of ways. The environmental initiatives in Romania will result in the improvement of rural livelihood and conservation of biodiversity in environmentally protected areas through dissemination of sustainable forest and land management practices, while undertaking income generating activities. UNDP believes that biodiversity is a key developmental issue. It is not an option, nor a luxury restricted to rich countries.<sup>3</sup>



## PORTFOLIO

**Soknan Han Jung, Resident Representative**

### FSSD\*

Part of Romania's efforts to ensure coordination and mainstreaming of local and global environmental activities is its efforts to identify capacity development needs. The NCSA has produced three Thematic Assessment Reports on Climate Change, Biodiversity Conservation and Land Degradation as well as a cross cutting issues report and is working on developing an action plan and a resource mobilization strategy.

### ENERGY

Access to sustainable energy resources and reducing GHG emissions can only be achieved if it is coupled with work on energy efficiency. The energy efficiency project works through energy efficiency investments. This project is highlighted in the project spotlight.



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### SPOTLIGHT

#### Sustainable Conservation through Capacity Building<sup>1</sup>

The Kamchatka peninsula is one of the world's last great wildernesses, home to 29 species of rare and endemic plants, as well as many birds and large mammals. Having been historically protected by its remoteness and strategic importance, the 1,500 km peninsula remains relatively untouched, offering an outstanding opportunity to conserve its globally significant biodiversity. However, the past decade of economic reform and social upheaval have brought financial hardship to the local communities, and sharply reduced protected area budgets, leading to significant and increasing threats to Kamchatka's biodiversity and existing protected areas.

In 2002, with US\$ 2.1 million financing from GEF and US\$ 3 million in co-financing, UNDP, in collaboration with the Government, began a project to introduce conservation and sustainable use of biodiversity in four protected areas in Kamchatka. The main goals of the project were to strengthen capacity for protected area management, develop infrastructure for nature protection and tourism, review environmental legislation, create alternative livelihoods for local populations, raise the professional level of protected area staff, and increase public awareness of the value of Kamchatka's biodiversity.

Implementation of the project to date has been highly successful. Strengthening of the protected areas has been realised through the development of the first ever management plans, the creation and strengthening of field offices, guard posts and ranger patrol stations, and increased staffing levels. A feasibility assessment for ecotourism development is being finalised, and pollution issues within the protected areas are being addressed. A Conservation Trust Fund has been registered in Kamchatka, and financial mechanisms for conservation programmes are being developed. In addition, the project has increased biodiversity awareness and advocacy among the media, students and communities, who now have a greater understanding of the relationship between protected areas, biodiversity and resource conservation, and the sustainability of their quality of life.<sup>2</sup>

# BIODIVERSITY

## QUICK FACTS

<b>Total UNDP-GEF and Co-Finance:</b>	\$70,378,850
<b>Total UNDP and Co-Finance:</b>	\$434,260
<b>Total:</b>	\$70,813,110



The Russian economy is now entering a new expansion phase that will introduce new pressures on the environment and could hinder the fulfilment of Russia's international agreements.<sup>3</sup> Seeking out and sharing best practices, providing innovative policy advice and linking partners, UNDP Russia helps to meet the challenges in the implementation and enforcement of legislation and policies, the provision of adequate institutional and financial frameworks for effective pollution abatement, investments in energy efficiency and protection of biodiversity and habitats and the development of capacity to comply with international environment agreements.

**Stefan Vassilev, Resident Representative**

## PORTFOLIO

### FSSD\*

The strategic environment assessment (SEA) aims to improve transparency and sustainability of local planning in Russian Federation. This will provide a national promotional campaign for SEA in local planning in Russia, target promotion of SEA in four selected regions, and create four pilot SEA projects and promote international exchanges to facilitate transfer of relevant experience.

### ENERGY

Access to sustainable energy services is addressed by the Russian Federation by launching programmes that assist in improving energy efficiency in schools; removing barriers to coal mine methane recovery and utilisation; creating a prototype system of billing and metering for tenants to improve energy efficiency. The Kostroma government supported a biomass energy project that aimed at the reduction of GHG emissions through the use of renewable energy sources. UNDP- PPPUE is funding a project that is designing a new consumption-based system of billing and payment for municipal utility services.

### BIODIVERSITY

A number of partners including the Komi Government, GEF, CIDA, and UNF are assisting the Government in the conservation and sustainable use of biodiversity through more than ten projects. One of them is the Lower Volga to Kamchatka (as featured in the project spotlight). Biodiversity projects also work to promote the social, financial, and institutional sustainability of the protected areas, while implementing best environmental management practices.



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<sup>3</sup>UNDP-GEF Projects database: <http://cfapp2.undp.org/gef/site/blank.cfm?module=projects&page=webProject&GEFProjectCode=3346>; GEF Online database: <http://www.gefonline.org/projectDetails.cfm?projID=932>; WWF Global 200 Ecoregions: [http://www.panda.org/about\\_wwf/where\\_we\\_work/ecoregions/kamchatka\\_taiga\\_grasslands/index.cfm](http://www.panda.org/about_wwf/where_we_work/ecoregions/kamchatka_taiga_grasslands/index.cfm); <sup>4</sup><http://www.undp.ru/index.phtml?iso=RU&lid=1&cmd=programs4>; \*Frameworks and Strategies for Sustainable Development

## SERBIA AND MONTENEGRO

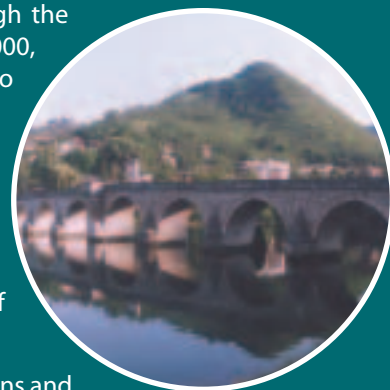
### SPOTLIGHT

#### A Twin-Track Path to Environmental Management<sup>1</sup>

When the former Federal Republic of Yugoslavia became a GEF member in 2001, it was not easy to envisage that the country would further evolve its structure and become a union of two republics of Serbia and Montenegro, each with their own legislative and policy frameworks on environmental issues. The two republics were at different levels of capacity and commitment, and UNDP acted as a mediator to assist them in identifying these issues and together producing and adopting environmental action plans.

The initial objective for GEF inclusion remained the same for both republics, as well as at the state union level: to develop a strategy for sustainable development in environment. Through the National Capacity Self Assessment (NCSA) project, with funding from the GEF of US\$ 197,000, and co-financing from the Government of US\$ 27,000, UNDP assisted both republics to determine their capacities, assess priority needs and develop a plan of action in order to implement the three Rio Conventions on Biodiversity, Climate Change and Desertification, and meet the country's commitments to global environmental management. UNDP and the republics are currently in the process of negotiating completion of commitments to the conventions, using the twin track approach, a process whereby although only one agreement has been signed, fulfilment of obligations by each republic will be performed independently of one another. Thus, each can work separately in achieving goals of improved environmental management.

As a result of the NCSA project, Serbia and Montenegro ensured full ownership of action plans and environmental commitments by the local authorities. Through the novel approach, further replication by other programmes and initiatives working on a joint-republic level has been made possible. In addition, as the NCSA document was written in collaboration between the governments of both states, the process was a success in terms of creating an effective framework for cooperation.<sup>2</sup>



# STRATEGIES

## QUICK FACTS

<b>Total UNDP-GEF and Co-Finance:</b>	\$515,190
<b>Total UNDP and Co-Finance:</b>	\$2,628,365
<b>Total:</b>	\$3,143,555





Presently Serbia and Montenegro are working with UNDP to set up environmental programs and policies while international partnerships are beginning to formulate. Recently, together with a support from Sweden, a dialogue was facilitated between a variety of partners and in particular the Minister of Science and Environment and the Office of the Deputy Prime Minister in Serbia in order to activate work on developing a Strategy for Sustainable Development for Serbia, thus ensuring attention at the highest level and coordination with the EU integration strategy, the PRS and the MDGs.



**Ratislav Vrbensky, Resident Representative**

## PORTFOLIO

### FSDD\*

The Energy and Environment Umbrella Framework supported by UNDP promotes good environmental governance. The GEF funded NCSA project will determine priority needs for capacity development. UNDP in partnership with Finland, is establishing a Geographic Information System that will help in identifying environmental issues in a quantifiable manner. A project funded by GEF, UNESCO, and UNDP aims at strengthening urban planning governance systems. While the Rockefeller Brothers Fund with UNDP is assisting in facilitating sustainable tourism entrepreneurship in Durmitor and preparing a hydropower plant strategy.

### ENERGY

Through the Climate Change Enabling Activity Self Assessment the Government is undertaking a stocktaking exercise in order to form a basis for the first national communication support. With the publication "Stuck in the Past" on Energy Environment Poverty linkages in SCG provided socially sensitive energy policy advice with minimal environmental degradation to harmonize energy market prices with social and ecological endurance. The results facilitated public discussion on these issues including contributing to the PRSP process in Serbia and Montenegro.



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### PARTNERS

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SIDA  
UNESCO  
Government of Finland  
Rockefeller Brothers Fund  
Government of The Netherlands



## TAJIKISTAN



### SPOTLIGHT

#### NHDR Enhances Policy Formation for Improved Water Management <sup>1</sup>

Water is Tajikistan's greatest natural resource, and potentially its greatest source of economic growth. Effective management of this resource could prove to be a powerful tool for facilitating progress in human development. However, to fully realize its potential, Tajikistan needs to overcome substantial obstacles to improved water management.

Recognizing the need for effective water management in the country and the huge potential benefits, the 2003 National Human Development Report (NHDR) aimed to promote dialogue around issues of water management in Tajikistan. The report argues that the deteriorated state of the public water infrastructure is a result of chronic under-investment in the water system, and that the haphazard responses of the authorities are symptomatic of a culture of weak institutional capacity that requires change. In addition, the report reveals the vast inefficiencies in the provision and consumption of water in the country.

The report makes 3 key recommendations. First, levels of investment for adequate rehabilitation and maintenance of household water supply and irrigation networks should be significantly increased, and salaries in public ministries and other agencies should be raised. This will require high and sustained levels of funding from the Government and the international community. Second, investment in training and in Tajikistan's water-related academic institutions is crucial in order to educate a new generation of policy-makers to combine the high technical standards of the previous era with today more sustainable and user-focused approaches. Third, wasteful water consumption patterns must be changed through awareness-raising campaigns to increase public appreciation and ownership of water as a shared national resource, as well as through public policy options such as raising water tariffs.

The findings and analyses of the NHDR, while by no means exhaustive, made a valuable contribution to the public debate and enhanced the level of policy formation and decision making taking place in Tajikistan today.



# WATER

## QUICK FACTS

<b>Total UNDP-GEF and Co-Finance:</b>	\$1,933,546
<b>Total UNDP and Co-Finance:</b>	\$146,000
<b>Total MPU and Bilateral:</b>	\$70,422
<b>Total:</b>	\$2,149,968
<b>Cumulative Total ODS Phased-Out:</b>	25 ODP tonnes



Tajikistan is proving its commitment to achieve MDGs through the comprehensive National Development Strategy to be developed with the support from the UN in Tajikistan, and UNDP in particular. The strategy will be based on the MDGs and also the findings of the recently published MDG needs assessment which clearly defines interventions and funding needed to achieve sustainable development. Environment, including water and sanitation, as well as disaster risk management, would be the integral elements of this strategy and are the key sectors to the attainment of all the MDGs set for Tajikistan. The president is personally leading the development of the strategy, and personally chairing the first government meeting where the process for developing the strategy will be approved.



**William Paton, Resident Representative**

## PORTFOLIO

### FSSD\*

The objective of the NCSA process is to determine the priority capacity development needs of Tajikistan in order to meet its commitments to global environmental management, specifically in the areas of biodiversity, climate change and combating desertification.

### WATER

UNDP in partnership with AKDN, and SDC, is providing coordinated and substantial support to the Government of Tajikistan to organize and conduct the International Conference on Transboundary River issues. The main goals of the Conference are to increase regional cooperation management of transboundary river basins, establish dialog among Central Asian countries on management of transboundary river basins, and work out recommendations to resolve current issues.

### ENERGY

The Promotion of Renewable Energy Use for Development of Rural Communities interventions in Tajikistan will substitute the current, unsustainable use of wood and fossil fuel resources by introducing mechanisms to facilitate the implementation of renewable energy technologies on a cost recovery basis and simultaneously boost the social and economic development of the communities.

### LAND

The overall goal of the "Demonstrating Local Responses to Combating Land Degradation and Improving Sustainable Land Management in SW Tajikistan" is to demonstrate the potential to implement replicable Sustainable Land Management initiatives at the local level and to build the capacity of local structures to do this.

### BIODIVERSITY

Establishing an effective system of core protected areas to ensure long-term conservation of the unique and globally significant biodiversity is a major objective in Tajikistan. The GEF is starting with Gissar Mountains. Tajikistan is also evaluating its capacity building needs, defining country specific priorities, analyzing functional capabilities and determining mechanisms necessary to protect national biodiversity in accordance with the BSAP recommendations.

### CHEMICALS

UNDP and Tajikistan are implementing a GEF-funded project that aims to strengthen the country's efforts in complying with Montreal Protocol measures. The project focuses in the refrigeration sector and provides technical assistance and technology transfer that contribute to enhancement of national public-private partnerships.

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### PARTNERS

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AKDN

## TURKEY



### Progress Towards Environmental Sustainability

Awareness of environmental issues has progressively increased in Turkey since the late 1980s. The Undersecretariat of Environment, established in 1978, was expanded to become the Ministry of Environment in 1991. The Ministry of Environment was merged with the Ministry of Forestry through Law May 2003 as part of the public administration reform activities. Environmental policies evolved from a passive stance of cleaning up in the aftermath of pollution to more improved strategies that envisage prevention and incorporate a sustainable development component that assigns priority to the integration of environmental, economic, and social issues.

Progress has been made in developing legislation regarding environmental problems and the institutionalization of approaches to problem solving. Despite these positive developments, however, there are deficiencies in the implementation of environmental management systems, sustainable management of natural resources, integration of environmental policies with economic and social policies, and utilization of economic instruments.

Over the past decade, the expanding use of natural gas for residential heating, particularly in large cities, and the efforts of local administrations to promote the use of natural gas have contributed to improving the quality of air. In 2002, natural gas constituted 20.6% of the total primary energy consumption in Turkey. Likewise, there are positive developments in reducing air pollution due to transportation, especially in larger cities, as a result of the expansion of subway systems, the increase in the number of vehicles running on unleaded gasoline, the use of LPG in commercial taxis, and wider use of coals with reduced sulfur content.

### QUICK FACTS

<b>Total UNDP and Co-Finance:</b>	\$312,296
<b>Total:</b>	\$312,296

Dioxide emissions remained stable during the period 1995 and 2001; however, these emissions have been increasing at a rate of around 10% on an annual basis since 2001. This is a major cause of concern and should be seriously monitored and the rate reversed.<sup>1</sup>

## SPOTLIGHT

### Protecting Monk Seals and Improving Fishermen's Livelihoods<sup>2</sup>

The Mediterranean monk seal is on the brink of extinction. One found throughout the Mediterranean, the Black Sea and the northwest African coast, their numbers have fallen drastically. Fishermen have killed the seals for traditional medicinal purposes, but also to prevent them from destroying their fishing equipment. Over-fishing and entanglement in fishing gear are the primary causes of monk seal's increasing mortality.

Concerned scientists from the Middle Eastern Technical University's Institute of Marine Sciences studied their habitat and the rate at which they were being hunted. They found that detrimental fishing practices, such as trawling or using large nets, the expansion of fishing to new areas, coastal construction and increased tourism all contributed to the loss of the species. Significant depletion of fish populations was threatening the entire ecosystem, adversely affecting the seals and the local fishermen, who depend on fishing for their livelihoods.

In 1998, the Institute's scientists teamed up with a national NGO, the Underwater Research Society, which received a grant from the GEF Small Grants Programme (SGP). The project, which also involved local authorities, raised awareness about this problem among local fishermen. Activities were organized to help the fishermen understand the seals' plight, and the relationship between certain fishing practices and the loss of their livelihoods. These efforts prompted the fishermen to join with the scientists in lobbying for the creation of three protected areas. Finally, in 1999, Turkish fishing authorities accepted the Institute's plan to create a large marine protected area with three protection zones. Recently, monk seal conservation efforts in the region have succeeded in establishing five protected coastal sites, as well as a no-trawling area and a no-fishing zone.

This project was successful because SGP was able to bring scientists and fishermen together and eventually build enough public support to create new protected areas for the seals.



In Turkey, UNDP has been a close partner to numerous national and international institutions to find practical solutions to Turkey's development challenges. Within the scope of developing Local Strategies for Environment and Sustainable Development, UNDP is supporting local communities and grassroots organizations for their conservation and sustainable management of biological resources. The Local Agenda 21 Program of Turkey has been catalytic to engage local communities' participation in development processes to respond to local development needs including sustainable environment management.

**Jakob Simonsen, Resident Representative**

## PORTFOLIO

### ENERGY

To address access to sustainable energy and reduce GHG emissions, UNDP with funding from GEF has launched the preparation of the National Communication to UNFCCC. Working with stakeholders the programme will identify priority activity areas and also establish links with relevant regional and international expert institutions and ensure the sustainability of activities for further National Communications.

### BIODIVERSITY

Community action for conserving and sustainably use biodiversity is what Turkey has adopted through initiating the Baku Tiblisi Ceyhan (BTC) pipeline programme that will help the community to create sustainable businesses in the rural and urban areas. Together with BTC, UNDP provides support to non-governmental and grassroots organisations along the Turkish section of the BTC pipeline and to reverse biodiversity loss in these areas.



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### PARTNERS

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## TURKMENISTAN



### SPOTLIGHT

#### Environmental Strategy Approved by Head of State<sup>2</sup>

Turkmenistan possesses a rich and unique biological diversity comprised of river valley, oases and montane ecosystems, with desert ecosystems occupying the majority of the country. Some ecosystems remain relatively unaffected by human activities, as 90% of the population and production is concentrated on only about 10% of the country's territory. On the one hand, it is only necessary to protect the environment on a relatively limited and intensively developed territory; on the other hand, the possibility of further development of the vast desert territory requires strict policy to prevent development proceeding in a non-sustainable manner.

UNDP is supporting Turkmenistan in the design, implementation and enforcement of environmental legislation, particularly for biodiversity conservation under the National Biodiversity Strategy and Action Plan (NBSAP) with GEF support. The project's goal is to build human and institutional capacity to better address existing and emerging environmental issues. Under the overall guidance of the National Environmental Action Plan (NEAP), activities will include methods to dramatically improve environmental data collection, analysis and monitoring. The NEAP is a permanent planning document covering environmental protection and sets out concrete activities in the improvement of environmental management and sustainable use of natural resources.

In 2002, the President of Turkmenistan approved the NEAP, obliging all government entities to participate in its implementation. The NEAP has been incorporated into the National Development Strategy and is a product of the joint Government-UNDP National Environment Programme. The complexity of environmental problems in the region demands coordination and cooperation to find common solutions. To this end, UNDP is also supporting Turkmenistan's engagement in regional environmental initiatives such as Econet; a project designed to revise and improve the national protected areas system, currently based on a system of natural reserves (zapovedniks) established during Soviet times.

# BIODIVERSITY

## QUICK FACTS

<b>Total UNDP-GEF and Co-Finance:</b>	\$1,604,020
<b>Total UNDP and Co-Finance:</b>	\$434,935
<b>Total:</b>	\$2,038,955

**Cumulative Total ODS Phased-Out:** 31 ODP tonnes



Turkmenistan continues to be highly vulnerable to environmental damage, particularly with regard to the fragile, arid ecosystems and limited water resources. New UN initiatives will support civil society by addressing environmental concerns at the community level. The UN aims to continue dialogue and support to the government to fulfil its obligations to international conventions and frameworks for environmental protection and sustainable development.<sup>2</sup> A stronger focus on effective management of natural resources and aligning environmental policies with economic and social policies will create favourable conditions for the life of Turkmenistan's people.<sup>3</sup>

**Khaled Philby, Resident Representative**

## PORTFOLIO

**FSSD\*** Integrated management of environmental resources can be achieved through aligning national and international priorities as part of Turkmenistan obligations under the International Environmental Conventions. This can be achieved by determining the priority capacity development needs, specifically in the areas of biodiversity, climate change and combating desertification. The project and goal of NEAP is featured in the project spotlight section.

**WATER** Transboundary water issues are of concern in Turkmenistan considering the neighbouring conflicts. The Amudarya Water Quality Assessment is specifically designed to measure the impact of the 2001 Afghan crisis on the water quality of the Amudarya river, which is the major source of irrigation for agricultural production of Turkmenistan and Uzbekistan. UNDP and the British Government are assisting in the water assessment exercise which has already led to adopting a number of recommendations with regard to water management in the country.

**ENERGY** The Government of Turkmenistan is partnering with Denmark to address energy efficiency issues by removing existing barriers to the improvement of the heat and hot water supply systems in Turkmenistan, thereby reducing their energy consumption and the associated greenhouse gas emissions. Implementing of some pilot projects will be facilitated by the preparation of feasibility studies, and assisting the government in the establishment of a supportive institutional and financial framework for energy efficiency investments.

**LAND** The Sustainable Land Management Development objective is to overcome the existing policy inconsistencies and disconnect between the policy framework for land management and actual needs of land-users by initiating participatory dialogue with involvement of the key line ministries, local government and local land users. The main policy document that sets the framework and identifies the priorities in the management of land resources is the National Action Programme for UNCCD implementation supported by UNDP through GEF.

**BIODIVERSITY** The objectives of BSAP process are to assist the government assessing the capacity building needs in priority areas. A major outcome is the "Third National Report of Turkmenistan" synthesise biodiversity information. Econet is meant to review and revise the protected areas network and set up ground for reforming the protected area system into internationally accepted conservation areas. The Khazar Nature Reserve on the Caspian Sea coast project, funded by the Government of Turkmenistan, UNDP, GEF, and OSCE, strengthens Turkmenistan's National System of Protected Areas.

**CHEMICALS** Turkmenistan's efforts to comply with its obligations under the Montreal Protocol are met by UNDP through implementation of a GEF-funded project that targets ODS consumption in the refrigeration sector. The initiative provides technical assistance and technology transfer through inclusion of a recovery and recycling project for refrigerants. A structured training component completes the programme in order to ensure national capacity development in the refrigeration servicing sector.

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### PARTNERS

**Some of our Partners working with UNDP and the Government in Turkmenistan**

OSCE  
Government of UK  
Government of Denmark

<sup>1</sup> UNDP Turkmenistan Questionnaire; Ministry of Nature Protection, NBSAP for Turkmenistan, 2002: <http://www.biodiv.org/doc/world/tm/tm-nbsap-01-en.pdf> and GEF Online database: <http://www.gefonline.org/projectDetails.cfm?projID=2419>; <sup>2</sup> [http://www.undg.org/documents/5471-Turkmenistan\\_CCA.doc](http://www.undg.org/documents/5471-Turkmenistan_CCA.doc); <sup>3</sup> [http://www.undg.org/documents/3656-Turkmenistan\\_UNDAF\\_\\_2005-2009\\_.doc](http://www.undg.org/documents/3656-Turkmenistan_UNDAF__2005-2009_.doc); \*Frameworks and Strategies for Sustainable Development



### SPOTLIGHT

#### Market Solutions Drive Efficiency and Energy Conservation<sup>1</sup>

Ukraine is one of the least energy efficient countries in the world, with the highest emissions levels per unit of GDP among the Commonwealth of Independent States, and significantly exceeds the levels in most European countries. Ukraine's poor economic conditions and the corresponding severe drop in the level of services, as well as global fuel price increases from 2003-2005 have exacerbated the situation.

In 2003 the city of Rivne competed against 15 other Ukrainian municipalities, winning the opportunity to develop an energy savings consulting organization, or "ESCO" to address the poor functioning of the city's heat and hot water supply system. With a US\$ 2 million grant from the GEF, UNDP assisted Rivne develop ESCO-Rivne, a public-private partnership that is a wholly municipally-owned private corporation devoted to refurbishing municipal heat generation systems, and developing of a market for energy efficiency ideas.

The first phase of the project has made significant achievements in improving the overall capacity of ESCO-Rivne for implementing energy efficiency activities in the municipal district heating sector. An Energy Efficiency Plan for Rivne has been prepared and presented. The Plan covers all areas of heat and electric power generation, distribution and consumption in Rivne, and contains a proposed strategy for the implementation of energy efficiency measures. In further support of this project, the Prime Minister and UNDP's Executive Board have visited the site.

Emissions reduction from the period June-December 2004 was 7,800 tons of CO<sub>2</sub> equivalent. In addition, heat loss from the water pipes has since dropped from 22-25% to 6-8%, resulting in reduced natural gas use and emissions. Finally, as a result of UNDP's resource management and capacity development assistance, 50,000 inhabitants of one of the central neighbourhoods now receive 24-hour hot water and heating, and the municipality has cut its energy bill by one-third, a cost savings of \$100,000 per month.



# CLIMATE CHANGE

## QUICK FACTS

<b>Total UNDP-GEF and Co-Finance:</b>	\$9,308,290
<b>Total UNDP and Co-Finance:</b>	\$900,000
<b>Total:</b>	\$10,208,290



Ukraine has the unique status of being home to some of the richest natural environments and resources in Europe while at the same time being one of the most heavily polluted countries in the region. UNDP's environmental programme is addressing these issues through national and sub-regional activities.<sup>2</sup> The financial resources that have been allocated for development, demonstrate the depth of the UN's commitment to helping Ukraine fulfil its commitment to achieve the Millennium Goals.

**Francis M. O'Donnell, Resident Representative**

## PORTFOLIO

### FSSD\*

To facilitate the development of concrete initiatives that will lead to synergistic approaches in addressing global environmental issues at the national and local levels, UNDP is assisting Ukraine in conducting a National Capacity Self Assessment for Global Environmental Management. This will lead to integrating global environmental management objectives to national environmental management and sustainable development frameworks.

### ENERGY

Access to sustainable energy has been addressed innovatively in Ukraine with an overall strategy to promote municipal energy efficiency, through demonstration schemes in municipalities and to facilitate the replication of successful experience in other medium and large-sized Ukrainian cities. This will be done by reducing major institutional and financial barriers at municipal level. The energy efficiency project in Rivne is highlighted in the project spotlight section.

### LAND

Integrated Land Management is addressed by the government and UNDP and USAID in Ukraine by developing an overall Agricultural Policy for Human Development. This intervention will also support the government in developing modern and innovative agricultural policies based on sustainable development principles.

### BIODIVERSITY

The main objective of the Consolidation of the Polissya Ecological Corridor programme is to ensure conservation of globally significant biodiversity in the Ukrainian Upper Pripyat. This will be achieved through strengthening biodiversity conservation efforts in the Shatsk National Park and the new Pripyat-Stokhod national park. Promoting biodiversity-friendly land use practices in agriculture, tourism, forestry and fishing sectors through public awareness and environmental education for biodiversity conservation.



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### PARTNERS

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SDC  
USAID

<sup>1</sup>UNDP Choices, "Ukrainian City Uses Market Solutions to Reduce Energy, Cut Waste", June 2004: <http://www.undp.org/dpa/choices/2004/june/ukraine.html> and GEF online database: <http://www.gefonline.org/projectDetails.cfm?projID=2249>; <sup>2</sup><http://www.undp.org.ua/?page=areas&area=5&PHPSESSID=1302b0778494ead638d4e0778405fe22>; \*Frameworks and Strategies for Sustainable Development





### SPOTLIGHT

#### Building Capacity for Solar Energy<sup>1</sup>

Until recently, almost 1,500 remote, rural communities in Uzbekistan were not connected to the national electricity grid and lacked good quality drinking water. Many of these remote communities were in the autonomous region of Karakalpakstan. Because of their remoteness and relatively small size, the supply of electric energy was not planned for such districts, as the installation of electric-power transmission lines could not be economically justified. For these reasons, the standard of living in such remote settlements remained low; social tension was growing and people were starting to abandon their native lands and migrate to cities.

These factors, coupled with the commitments of countries under the Kyoto Protocol, boosted activities in Uzbekistan exploring the use of renewable energy, particularly photovoltaic generators. It was found that the use of solar energy for electrification and provision of good quality drinking water in remote rural settlements in arid and semi-arid zones could help address the problems in these areas and raise the rural communities' living standards.

In 2002 UNDP launched a project to provide clean energy through the installation of 25 operational photoelectric stations (FES) in remote rural communities in the Karakalpakstan region. The first 15 were installed for household purposes and today provide electricity for lighting, radio and black-and-white televisions. The other 10 were used to pump water from wells for watering cattle. During the project implementation period, 25 local people were trained to operate and maintain FES, ensuring the future sustainability of the project.

The project was successful because it contributed to building the capacity of the local population, local government bodies, NGOs and the private sector in the use of solar energy to generate electricity.

# ENERGY

## QUICK FACTS

<b>Total UNDP-GEF and Co-Finance:</b>	\$3,745,548
<b>Total UNDP and Co-Finance:</b>	\$1,805,833
<b>Total:</b>	\$5,551,381

**Cumulative Total ODS Phased-Out:** 127 ODP tonnes



The key focus of UNDP's activities in the area of environmental governance is to support Uzbekistan in effectively implementing its international commitments and raise public awareness on environmental issues.<sup>2</sup> UNDP has consistently supported the national efforts to achieve the MDGs. UNDP's portfolio in that regard ranges from policy advice and capacity building for better environmental governance as a whole, to demonstration and testing of innovative approaches to biodiversity conservation, land management, and the development of renewable energy options.

**Fikret Akcura, Resident Representative**

## PORTFOLIO

**FSSD\*** The primary goal is for all stakeholders involved with the UN Conventions on environmental protection, to jointly assess their efforts to identify national capacity needs and ways to address them. UNDP with its partners, CIDA, NZAID, and APN provide support that enables Uzbekistan to participate in environmental initiatives at the international level. A number of projects that are implemented mainly establish links between international conventions and national development plans through the development of project proposals, arranging funding support and assisting with project start up.

**WATER** Drought management is an essential area of concern in Uzbekistan. The drought recovery programme will assist the government in developing an immediate, medium and long-term Drought Recovery Plan. This will provide policy advice to the central and regional authorities in planning and implementing the preventive measures and address long-term structural causes of the drought. UNDP also assists the government in developing a Drought Mitigation Framework with strategic national priorities, clear-cut and practical measures to respond to the immediate needs of the affected population.

**ENERGY** Uzbekistan addresses access to energy through a number of initiatives including the "Transfer of technology for local production of solar panels for water heating" project supported by DANIDA. This programme focuses on two strategic directions in developing the renewable energy sector in the country: building national and local capacity for the implementation of projects addressing the development of sustainable energy sources; and demonstrating innovative approaches which encourage positive changes in energy saving policies. The "Clean energy for remote rural communities in Karakalpakstan" project is featured in the project spotlight.

**BIODIVERSITY** Ecosystem management is being addressed through a programme supported by UNDP. The "Achieving Ecosystem Stability on the Exposed Aral Seabed" explored moving sands and prepared a feasibility document for the degraded land. While "Conservation of Kugitang Mountains Biodiversity in Uzbekistan" and "Conservation of "Tugai" Gallery Forest in the Amu Darya Delta of Karakalpakstan" are preparatory projects aiming at the conservation and sustainable use of biodiversity in the country. The Nuratau-Kyzylkum Biosphere Reserve for Biodiversity Conservation integrates conservation and sustainable development and promotes local assistance.

**CHEMICALS** As part of its support programme to ensure compliance with Montreal Protocol measures, UNDP is assisting Uzbekistan through implementation of a GEF-funded project that targets the refrigeration sector through technology transfer and technical assistance/training that aims to develop the national capacity necessary to ensure sustainable phase-out of ODS in the sector.

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EU      APN      NDF      CIDA      OSCE  
STCU      TIKA      UNEP      DANIDA      NZAID

<sup>2</sup>Environment Programme of the Government of Uzbekistan supported by the UNDP Project Document, "Clean energy for rural communities in Karakalpakstan": [http://www.nature.uz/projects/energy\\_eng.doc](http://www.nature.uz/projects/energy_eng.doc); <http://www.undp.uz/content/view/64/2241/>; \*Frameworks and Strategies for Sustainable Development

# LATIN AMERICA AND THE CARIBBEAN

**Argentina**

**Barbados**

**Belize**

**Bolivia**

**Brazil**

**Chile**

**Colombia**

**Costa Rica**

**Cuba**

**Dominican Republic**

**Ecuador**

**El Salvador**

**Guatemala**

**Guyana**

**Haiti**

**Honduras**

**Jamaica**

**Mexico**

**Nicaragua**

**Panama**

**Paraguay**

**Peru**

**Trinidad & Tobago**

**Uruguay**

**Venezuela**

## REGIONAL SPOTLIGHTS

### Creating New Markets for Knowledge Sharing<sup>1</sup>

Knowledge management, which by definition is set to facilitate learning processes, plays a central role in capacity development: helping individuals, institutions and societies acquire, learn – from local and global experiences – and reinvent the knowledge that meets local needs. When adaptation happens, knowledge can be a powerful means for developing long-lasting indigenous and existing capacities. Failing to adapt to local conditions, however, could result in no local ownership and no lasting capacity development. A gap-filling approach, then, tends to prevail. In a global perspective, knowledge sharing and management is central to alleviating global threats to biodiversity, barriers to cleaner production or political hurdles to environmentally sustainable development.

In one of the major UNDP knowledge management events of 2003, the Latin America and Caribbean Regional Resource Facility, in collaboration with the office in Costa Rica, provided key support to organize the first Environmental Solutions Fair in the region. Inspired by a prior knowledge sharing event organized by UNDP's Local Governance Program in Bogotá, Colombia, in December 2002, the fair concept consisted in brokering knowledge between those who practice innovative approaches to sustainable development and those institutions or individuals interested in acquiring these approaches. Coined as a "knowledge market" where "knowledge buyers" interested in the transfer of the Costa Rican experience, and "knowledge sellers," government agencies, private sector and research centres that have participated in the development and execution of environmental politics can meet and trade experiences that have positively impacted the state of the environment.

The fair drew over 150 participants from 20 countries, mostly from Latin America and the Caribbean. In addition to technical and logistical support provided by UNDP, many delegations included civil servants, policy specialists and researchers interested in learning from these experiences in environmental management, conservation, eco-tourism and environmental service payments availed themselves to the community. Linking up with potential donors was another of the successes of this fair, where over 18 donor agencies participated. Of 42 statements of cooperation signed, 32 have already received funding. Given this success, UNDP now promotes Knowledge Solutions Fairs throughout Latin American and the Caribbean region and other regions of the world.

### Rio de la Plata and its Maritime Front: Pollution Prevention and Control and Habitat Restoration<sup>2</sup>

Fed by the vast La Plata Basin, the Rio de la Plata and its Maritime Front, contains globally significant biodiversity, and supports a number of economic activities, including commercial fisheries, tourism, and transportation. It is increasingly being degraded by point and non-point source pollution, including from hydro-carbons, heavy metals and other industrial wastes, agro-chemicals, and solid wastes, and is also being affected by channelisation, sedimentation and habitat degradation.

Argentina and Uruguay, the riparian countries, have taken a number of steps to address these problems as part of their national sustainable development baselines. However, there has been little complementarity between these respective efforts, and activities have not targeted the causes of transboundary pollution because understanding of the functioning of the system and the transboundary determinants of the problem were inadequate.

Started in 1999, the \$7.3 million GEF funded, *Environmental Protection of the Rio de la Plata and its Maritime Front: Pollution Prevention and Control and Habitat Restoration* project, aims to contribute to the mitigation of current and emergent transboundary threats to the waterbody by assisting Argentina and Uruguay to prepare a Strategic Action Programme as a framework for addressing the most imminent transboundary issues. As part of the SAP, water and sediments quality and pollution reduction targets for high priority pollutants will be developed based on the results of a Transboundary Diagnostic Analysis (TDA) and through participatory consensus building processes involving key authorities charged with emissions reductions and stakeholders from both countries.

The project has advanced closer towards delivering the final report of the TDA. All data, documents and maps used for the drafting of the TDA report, are being introduced into the Environmental Information System. The TDA report will provide much needed technical assistance and generate a quality product that will underpin the preparation of the SAP and its later operationalization.



### Biomass Users Network of Central America<sup>3</sup>

The Biomass Users Network of Central America began ten years ago with a \$25,000 grant from the GEF Small Grants Programme in Costa Rica. Today, the network is a large international organization operating in seven Central American countries and administering multi-million dollar projects. Its goal is to build biomass programmes that catalyze rural development as well as preserve natural resources and reduce greenhouse gas emissions.

The first project of the Biomass Users Network of Costa Rica (the NGO's original name) was to implement small-scale biomass management efforts and to strengthen its own capacity to scale up these experiences. This initial project yielded a variety of benefits, including the regeneration of eroded soils, reduced firewood use through improved stoves and better planning, women's participation in natural resource management and less pesticide use. Through this first project, the network built important partnerships with key actors in sustainable development in Costa Rica. The network began to be recognized throughout the country for its work in agriculture and sustainable development and its capacity to manage projects.

Subsequently, several international donors, appointed the Biomass Users Network of Costa Rica as the implementing agency for their projects. The organization gradually began to undertake project development in other Central American countries as well.

In 1999, the network received a \$750,000 medium-sized GEF grant for a project called 'Strengthening Capacity for Renewable Energy in Central America'. The project undertakes capacity-building by setting up small-scale renewable energy projects in rural areas and works towards integrating environmental protection into energy policies throughout Central America. To reflect its new regional focus on sustainable agriculture, energy efficiency and renewable energy, the network changed its name to the Biomass Users Network of Central America. It is now a major player in agriculture and renewable energy in the region.

# ENERGY

### Regional Strategies for the Conservation and Sustainable Management of Natural Resources in the Amazon<sup>4</sup>

The Amazon region covers nearly 8 million square kilometers of tropical rain forest and contains some of the most diverse forms of life on earth. Amazonian biodiversity has made a notable contribution to local, regional, and world economies. The search for new and sustainable ways to manage and use this biodiversity for human benefit needed also to take into account its long-term protection. Zoning of this area was needed to understand the types of ecosystems and patterns of land use and prevent the unchecked occupation of land and damage to ecosystems.

The 4 year \$4.5 million funded GEF Regional Strategies for the Conservation and Sustainable Management of Natural Resources in the Amazon project had the broad objective of zoning the Amazon basin and finding viable economic, social, and environmental alternatives to the use of its natural resources without destroying its ecosystems. Specifically, the project worked to augment sustainable development efforts in the Amazon region through ecological zoning and geographical monitoring, build capacity to conserve the region's biodiversity, and manage natural resources in indigenous lands.

Implemented across Bolivia, Brazil, Colombia, Ecuador, Guyana, Peru, Suriname, Venezuela, project achievements include coordinating the eight Amazonian countries in standardizing ecological and economic zoning in the basin and gaining approval of a project by the Inter-American Development Bank to strengthen capacities of Amazonian countries. In addition, the project achieved regional consensus on protecting intellectual property related to genetic resources and sustainable management of the Amazon forest. 28 biodiversity information centers were created and biodiversity management capacity in 33 institutions were improved as more than 1,500 professionals were trained in biodiversity management.

The project has been successful in preserving the biological and cultural diversity of ecosystems in the region, maintaining tropical forest cover, providing economic benefits to communities through sustainable commercial uses of biodiversity and reinforcing capabilities at national, state, and municipal levels to manage resource use.

# BIODIVERSITY

<sup>3</sup>LAC SURF (2004) Environmental Solutions Fair in Costa Rica in LAC Surf Newsletter, Volume 2, Issue 1: <http://www.undp.org/surf-panama/docs/volume2-issue1eng.pdf> and Pascal O. Giro, (2004) Costa Rica's Environmental Solutions Fair: A Lac Surf Knowledge Management Event: [http://www.undp.org/surf-panama/docs/solutions\\_fair.doc](http://www.undp.org/surf-panama/docs/solutions_fair.doc); <sup>4</sup>UNDP Project Brief: Rio de la Plata and its Maritime Front: Pollution Prevention and Control and Habitat Restoration. <http://www.iwlearn.net/docs/plata/plata00e.pdf>; <sup>5</sup>Partners for Change: Experiences from UNDP's Work with Civil Society Organizations through the Global Environment Facility – Case study 6.2 "Biomass Project in Cost Rica Spawns Influential Regional Network" [http://www.undp.org/gef/undp-gef\\_publications/publications/civilsociety\\_english.pdf](http://www.undp.org/gef/undp-gef_publications/publications/civilsociety_english.pdf); <sup>6</sup>UNDP-GEF Project Document. Regional Strategies for the Conservation and Sustainable Management of Natural Resources in the Amazon

## ARGENTINA



### MDG7

#### Progress Towards Environmental Sustainability

One of the major challenges to develop sustainable development strategies in Argentina is intrinsically related to the lack of environmental information. Some of the challenges to achieving MDG 7 for environmental sustainability include over exploitation and loss of natural resources; the promotion of protected areas to reduce the loss of biodiversity; efficiency in the use of natural resources; reduction in CO2 emissions; and access to safe drinking water.

In the last 10 years, the native forests have been reduced from 35 to 30 million hectares, a rate of around 500,000 hectares per year. To reverse this pattern the Government launched the Native Forest and Protected Areas First Inventory using satellite images, and the creation of a natural resources management pilot programme. The collection of such data will help the development and implementation of the MDG 7 strategies, especially in the rural areas, where environment has a greater impact on the population.

Much still needs to be done to reduce the percentage of the population without access to sanitation facilities by 2015. According to the Population and Household 1990 Survey, around 36% of the population lived with access to sanitation facilities and by 2001, this census revealed an increase of only 6%. The gap between cities and the rural areas exacerbates these differences. The survey also showed some improvements: by 1990, 68 % of the population had access to safe drinking water, which increased to 89 % in 2001.

## QUICK FACTS

#### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$20,657,325
<b>Total UNDP and Co-Finance:</b>	\$9,457,000
<b>Total MPU and Bilateral:</b>	\$6,539,042
<b>Total:</b>	\$36,653,367

**Cumulative Total ODS Phased-Out:** 1,597.0 ODP tonnes

Lack of generation and promotion of access to natural resources and sanitation services in urban and rural areas will lead to a loss in environmental resources and stagnation. Integrated national and regional public policies will be a primordial requisite to achieve the MDGs. Enforcement and institutional capacity support for environmental protection will have a positive impact on the Argentinean population.<sup>1</sup>

## SPOTLIGHT



#### Tourism and Conservation in Patagonia<sup>2</sup>

Argentina is internationally renowned for its biodiversity, in particular its marine resources. Patagonia provides unique breeding grounds for penguins, sea lions and elephant seals, which also serve as popular areas for tourists. Punta Tombo is a penguin-breeding site and a popular tourist destination that generates an estimated USD\$ 3 million in revenue each year and numerous jobs for the local communities. However, estimates made in the 1980s along the coast of Patagonia indicated that 41,000 penguins were dying at sea as a result of chronic oiling.

UNDP-GEF responded to this challenge by supporting the initiative of Fundación Patagonia Natural and the Wildlife Conservation Society through a 3-year project in 1996 to protect penguin-breeding sites. By drawing attention to the problem in the media, and developing technical data to address the issue, oil-shipping companies substantially improved their practices at sea. As a result, surveys undertaken in 2000 indicated that the presence of oiled penguins in the areas examined was negligible. The project achieved a significant reduction in the number of deaths of Magellanic penguins.

In 1999, in order to sustain the project's successful efforts, and to promote the conservation and sustainable use of Argentina's marine resources, a GEF-supported project supported the Consolidation and Implementation of the Patagonian Coastal Zone Management Programme for Biodiversity Conservation, together with the Government of Argentina and the IADB, with a US\$ 5.2 million grant and where a co-financing amount of US\$ 12.9 was raised. During this second phase, the project provided additional protection to a large number of penguin-breeding sites, including Punta Tombo. One immediate result of this approach is that Magellanic penguin populations have remained stable since 2000 at approximately 1 million breeding pairs. In addition, South American sea lions and Southern Elephant seal populations have increased annually by 3% since the project began.

"Among the projects being implemented, the ones on vulnerable ecosystems management, fight against desertification, risk management, pollution reduction, ozone layer protection, and climate change stand out. But UNDP's objective is not just to act as an environmental agency. Our permanent interest is to incorporate the environmental matters in the process of development. It is not our intention to promote projects that only consider the environmental side of the problem but those that have a strong content regarding poverty reduction, promotion on economic growth and strengthening of sustainable development. Our strategy is based on developing the institutional, economic and social mechanisms in order to incorporate environmental matters within the process of growth and show that they are not antagonistic but synergic."

**Carlos F. Martinez, Resident Representative**

## PORTFOLIO

### FSSD\*

UNDP is supporting the Government to develop a national environmental agenda that will produce an updated diagnostic of the main environmental issues in the country. The Government is providing funding for this project, which will also assess the feasibility of various sustainable development theories for Latin America and propose alternatives to ensure natural resource considerations are included in the national budget.

### WATER

To support effective water governance in the country, UNDP is implementing a project funded by the government to strengthen the capacity of the National Water Institute. This project will develop the Institute's operative capacity, enabling its transformation into a top-level institution in the understanding, development and use of water resources.

### LAND

To address desertification in Patagonia, the local government has initiated the Sustainable Ovine Cattle-raising Programme. With funding from GEF, and implemented by UNDP, the project will complete the base actions necessary to prevent desertification in the area. In addition, UNDP is supporting a programme to develop a Sub-regional Action Plan for the American Gran Chaco ecosystem, which spans Argentina, Bolivia, and Paraguay. The Plan aims to combat desertification and support sustainable development in the region, and is supported by funding from the UNCCD, the Government of Argentina, and the Spanish Government.

### BIODIVERSITY

UNDP is currently supporting biodiversity conservation in Argentina through a variety of projects funded by GEF, the World Bank, UNDP resources, and the Government. Underpinning all the projects is support to the development and implementation of sustainable management and conservation strategies, with projects located in Esteros del Iberia, Yaboti Biosphere Reserve, Rio Quinto Basin, marine and forested areas, and, as highlighted in the Spotlight, the Patagonian coastal zone. These projects seek to protect biodiversity while enabling Argentinians to use their country's rich natural resources in a sustainable manner.

### CHEMICALS

UNDP has been supporting programmes that aim at the sound management of chemicals in Argentina for over 11 years, with a portfolio comprising about 60 projects. UNDP is the agency supporting Argentina with the establishment and strengthening of a sustainable government institution that coordinates all ozone-related activities in the country. In addition to institutional support at the national level, technical assistance is being provided through ongoing projects in the methyl bromide elimination and foam sectors. Significant impact has been achieved over the years resulting in maintenance of compliance with Montreal Protocol targets supported by improvement of legislation, and the fostering of successful public-private partnerships.

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### PARTNERS

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## BARBADOS



### Progress Towards Environmental Sustainability

Degradation of Barbados' marine and coastal environment has negatively impacted on both the social and economic development of the region. Use of those resources has conflicted with efforts to preserve biological diversity of individual islands. Already the clearing of the land since early settlement has resulted in the loss of a substantial amount of biodiversity. Forested land is lost because of the demand for settlement and space for infrastructure, as well as clearing for tobacco and sugar cultivation. At present, plans are afoot to set aside land to maintain the remaining biological diversity of the country.

In Barbados, data for 2000 show that 96.5% of households had access to an improved water source or piped drinking water. This figure excludes those households who have access to standpipes or water from a friend or neighbor's property or a well or spring. In that same year, 82% of total private households had water-borne toilet facilities. Carbon dioxide emissions in Barbados decreased between 1990 and 1996, but significantly increased by 1998, indicating greater usage of energy through increased industrial and construction activities.

In general, as individuals own their homes, there is a tendency for them to take pride in their surroundings. This reduces squatting and the resultant destruction of the environment. Contamination of water resources is also reduced as home ownership is confined to zones earmarked for such development. In Barbados, about 75% of households are owner-occupied and the government continues to encourage and provide incentives and loans for low-income earners to own homes.

Overall, data indicate that Barbados and the Eastern Caribbean are on track to meeting the MDG 7 targets for environmental sustainability by 2015.<sup>1</sup>

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$314,417
<b>Total MPU and Bilateral:</b>	\$221,761
<b>Total:</b>	\$536,178

**Cumulative Total ODS Phased-Out:** 6.3 ODP tonnes

## SPOTLIGHT

### Antigua & Barbuda – Public Awareness Campaign Pays Dividends<sup>2</sup>

Antigua & Barbuda began implementation of a GEF-supported Biodiversity Enabling Activity Project in September 1998. The purpose of the project was to enable Antigua & Barbuda to fulfil its responsibilities under the Convention on Biological Diversity (CBD) and specifically to prepare a National Biodiversity Strategy & Action Plan (NBSAP).

In order to enhance public awareness and illustrate the criticality of sustaining precious biodiversity on Antigua & Barbuda, the Environment Division developed a television programme as a means of involving civil society in biodiversity issues as a follow-up to the Enabling Activity. Initiated in 2004, EcoZone is the first of this type of programming with a variety of segments involving physical, mental and Internet challenges. For example, in one EcoZone series, participants were taken on a hike and abandoned. On their return to base they were given a hypothetical situation where there was a disaster and no food could enter the country. The participants were challenged to live off the biodiversity that they encountered on their hike. At the end of the exercise, participants were asked to draft a list of everything they consumed, prepare recipes around the meals they had eaten, create nutritional and dietary tables, draft legislation and institute other emergency measures to make life easier should one be caught in such a situation.

The EcoZone project that grew from the GEF-supported project has been a tremendous success and is still the talk throughout the region today. The show is currently aired in St. Lucia four times weekly and has gained interest in Dominica, Grenada and St. Vincent. The ultimate intention of the Environment Division is to eventually produce a regional programme on biodiversity issues through private funding.

# BIODIVERSITY



UNDP Barbados and the OECS's GEF Portfolio is designed to protect and regenerate the environment and natural resource asset base for sustainable human development, and to protect and regenerate the environment and promote access to natural resources on which poor people depend. These programmes also promote equity and burden sharing in international co-operation to protect and enhance the global and regional environment.<sup>3</sup> "UNDP supports the full involvement of communities and civil society in shaping policy and implementing programmes that bring together good governance, poverty reduction, and sound environmental management in a seamless tapestry."

**Rosina Wiltshire, Resident Representative**

## PORTFOLIO

### FSSD\*

UNDP is supporting OECS countries to build capacities in environmental policy and planning, to respond to the requirements of the Rio Conventions on Biodiversity, Climate Change and Desertification. GEF-funded National Capacity Self-Assessment (NCSA) projects in St. Vincent and the Grenadines, St. Kitts and Nevis, and Grenada are working assess the capacity needs of these countries to implement the Conventions in a holistic manner.

### ENERGY

With GEF support, UNDP is assisting OECS countries to prepare to meet their commitments under the UN Framework Convention on Climate Change, through climate change enabling activities in Barbados, Grenada, St. Kitts and Nevis, Dominica, and St. Lucia. The first phase of the projects are complete and the countries are now carrying out technology needs-assessments.

### BIODIVERSITY

UNDP's biodiversity activities in Barbados and the OECS Member States are funded by the GEF and focus on developing National Biodiversity Strategies and Action Plans (NBSAPs), and assessing the capacity-building needs for biodiversity conservation in each country. In Antigua and Barbuda, UNDP is supporting the assessment of capacity-building needs, while Grenada has completed its national strategy assessment, having submitted its report to GEF and the CBD, and is now preparing its 3rd report. St. Vincent and the Grenadines has completed its assessment and submitted its report to UNDP and GEF. Finally, in Dominica, biodiversity enabling activities have culminated in a report that is currently before the island's cabinet for approval.

### CHEMICALS

In Barbados, with funding from the Multilateral Fund of the Montreal Protocol, UNDP is working to strengthen Montreal Protocol compliance efforts in the refrigeration sector. In particular, assistance is being provided to the implementation of the RMP through technical assistance for the mobile air conditioning and end-users sectors, as well as through establishment of a monitoring system that serves to evaluate impact of the phase-out activities. Implementation of this project will involve both public and private sector stakeholders.

### CONTACTS

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<sup>3</sup>Barbados MDGR 2004, <http://www.undp.org/rblac/mdg/RegionalMDGCaribbean.pdf>; <sup>4</sup>UNDP Barbados Country Office Background Document; <sup>5</sup><http://www.bb.undp.org/energyenvir.html>; <sup>6</sup>Frameworks and Strategies for Sustainable Development

## BELIZE



### MDG7

#### Progress Towards Environmental Sustainability

Belize is home to some of the most important coastal resources, but risks from pollutants, habitat destruction, tourism and natural events threaten the sustainability of these resources. Belize has established Marine Protected areas that represent 13% of the land area and has enacted legislation to protect its coastal and marine resources. The protected areas system comprises national parks, nature reserves, wildlife sanctuaries, natural monuments, forest reserves, marine reserves, archaeological sites and archaeological reserves, as well as private reserves, strategic biological corridors and scenic landscapes of geomorphic significance.

For many years Belize was able to maintain a significant portion of its land mass in forest - 69% in 2002 - a figure which doubles most developing countries' forest area and is greater than the average for the Latin American and Caribbean Region. However, statistics reveal that the forest area is declining at a rapid rate. For example, in just ten years, the percentage of land mass covered by forests decreased from 79% to 69%. Timber production alone increased by 86% between 2000 and 2002 due to the worst pine beetle infestation the country has ever experienced.

Agriculture is the most extensive form of land use in Belize and increased to 77% between 1996 and 1998, occurring at a rate of 9% per annum. At this rate, it is estimated that by 2025, all suitable agricultural lands will be under cultivation.

Belize will have to conduct policy and legislative review to catalogue environmental regulations and policies with a view to ensuring better coordination, management and enforcement. Moreover, Belize will need to increase community participation in environmental management initiatives as one of the main strategies for reversing loss of resources. This should entail sharing the responsibilities and authority with local governments, community based organizations, private sector and vulnerable groups in the monitoring of the country's resources.

Currently, a significant portion of monitoring and sustainability initiatives are driven by external funding and technical support. Belize will have to invest more of its own resources to ensure long term sustainability of many of the initiatives and to improve its prospects for achieving MDG 7 for environmental sustainability.<sup>1</sup>

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$10,283,200
<b>Total MPU and Bilateral:</b>	\$64,879
<b>Total:</b>	\$10,348,079

**Cumulative Total ODS Phased-Out:** 5.8 ODP tonnes

## SPOTLIGHT



### Protecting Natural Resources through Conservation and Sustainable Development<sup>2</sup>

Toledo is the southernmost district of Belize and is rich in biodiversity. Growing threats to the district's environment from activities such as manatee poaching, illegal fishing and logging, destructive farming methods, and other types of unsustainable development initiated the formation of the Toledo Institute for Development and Environment (TIDE) in 1997, which was awarded a grant from UNDP's Equator Prize in 2002.

TIDE works in some of the poorest areas of Belize and through the Maya Mountain Marine Sustainable Livelihoods Initiative, collaborates with local communities to promote sustainable income generation and biodiversity conservation. TIDE has focused much of its poverty reduction efforts on certification programs and training, including an on-going programme to train and certify fly-fishing guides and an "ECO-OK" certification project for sustainably produced local timber. The project also supports micro-enterprises and ecotourism training that generates community income. Through promotion of participatory co-management of natural resources and development of community monitoring, the project has also reduced poaching of endangered manatees, the practice of gillnetting, and illegal hunting and logging.

UNDP's Equator Initiative awarded TIDE with a US\$ 30,000 grant in 2002, in recognition of their outstanding community efforts for poverty reduction and biodiversity conservation. The grant will be used to complete a much-needed community-learning centre and open a natural resources library. The center will hold community and advisory board meetings where community-based organizations meet with NGOs and governmental representatives. The centre is intended to be a neutral space for community members to come and openly discuss issues affecting their community. The natural resources library will fill an information gap in the area, by providing information and eventually internet access to community members and school children. It is expected that the library will be a central point for environmental data collection in the Toledo District and Southern Region of Belize.

"One of the four major goals of the UNDP programme in Belize is to create national planning and management capacity that will be able to focus on environmental management and sustainability as a vital instrument for reduction of poverty. Parallel to this, the UNDP Belize programme also targets the national potential for poverty elimination by enabling government and civil society to improve their capacities for the collection and analysis of statistical human development related data. The entire UNDP-Belize programme is being driven by the commitment to assist the Government of Belize in meeting the overarching MDGs by 2015."



**Joseph Hendrikx, Resident Representative**

## PORTFOLIO

### FSSD\*

UNDP is supporting Belize to build its capacities in sustainable development planning, to fulfil its commitments to the three Rio Conventions on Biodiversity, Climate Change and Desertification. The GEF-funded National Capacity Self-Assessment (NCSA) project to enable the country to assess and strategically analyse its current national capacity enhancement priorities and needs through a participatory process.

### ENERGY

In terms of Climate Change, UNDP is implementing a GEF-funded project to enable Belize to prepare its Second National Communication, part of its commitments to the UN Framework Convention on Climate Change. This is a self-assessment exercise which involves a full stocktaking and stakeholder consultations, and will enable Belize to prepare and submit a work plan for its National Communication, building upon existing activities, institutions, and knowledge.

### LAND

To support the adoption of sustainable land management capacities in Belize, UNDP is developing an LDC/SIDS Portfolio project to address widely-recognised problems of low institutional and human resource capacities, increased poverty, and inadequate capacities in land management. Funded by the GEF, the project will also enable Belize to strengthen policy, regulatory and economic incentive frameworks to facilitate wider adoption of sustainable land management practices across sectors.

### BIODIVERSITY

Building on the development of the National Biodiversity Strategy and Action Plan, UNDP is implementing a GEF-funded project to assess the capacity of the Forestry Department – a major agency involved in biodiversity management – to address country priorities in biodiversity. Another project, the Toledo Institute for Development and Environment, is highlighted in the Spotlight. Finally, UNDP is implementing a coastal zone management project, funded by GEF and the EU, to integrate development planning and marine biodiversity conservation principles at the Belize barrier reef.

### CHEMICALS

UNDP's chemicals programme for Belize is funded by the GEF and the Multilateral Fund of the Montreal Protocol (MLF). The MLF-financed projects are being implemented in cooperation with UNEP, and address needs of the refrigeration sector by providing incentives for the adoption of good maintenance and servicing practices. The GEF-funded initiative is an enabling activity for preparation of the POPs National Implementation Plan that seeks to strengthen Belize's sustainable capacity in addressing the management and accounting of POPs.

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### PARTNERS

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European Union

## BOLIVIA



### Progress Towards Environmental Sustainability



Due to Bolivia's weak institutional capacities, environmental management was not a priority in the country's development agenda. Consequently, previous development efforts did not improve the environmental situation, which has been marked by increasing degradation and erosion of soil, deforestation, loss of biological diversity and environmental pollution. In addition, Bolivia faces a number of other challenges to environmental

sustainability including: lack of environmental conscience and of political will, inadequate technical capacities, unsustainable modes of use and exploitation of natural resources, insufficient financial support, and international market conditions and payment of external debt.

In Bolivia, 47.5% of the national territory, which comes to 1.1 million km<sup>2</sup>, is covered by forests. By 2002, 21 protected areas had been created, which corresponds to 16% of total territory in comparison with 1% in 1991. The total national carbon dioxide emissions for the year 2002 were estimated at 62.614 Gg. (of which 89% are related to the change in soil use and forest agriculture, 10.5% to the energy sector and 0.46% to industrial processes for cement production).

The need for regulating access to land and to natural resources, for preventing environmental impact, and for ensuring bio-diversity conservation and environmental quality, has led to the approval of a series of legal norms that constitute a general framework for environmental management. The recognition of indigenous and farmers' rights over their territories and traditionally occupied lands as well as over natural resources, is one of the aspects on which progress has been made in the clearest manner.<sup>1</sup>

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$13,098,000
<b>Total UNDP and Co-Finance:</b>	\$145,140
<b>Total MPU and Bilateral:</b>	\$587,083
<b>Total:</b>	\$13,830,223

**Cumulative Total ODS Phased-Out:** 26.0 ODP tonnes

## SPOTLIGHT



### Innovative Financing Mechanism Provides Renewable Energy<sup>2</sup>

Many rural communities in Bolivia are beyond the reach of central power grids, and lack access to energy in the home for cooking, lighting and education, water pumping for irrigation and drinking water, agricultural processing, and lighting for health centers and educational institutions. This lack of access to energy is one of the contributing causes of poverty in these rural communities.

Establishing a foundation for the sustainable use of solar power in rural areas is one way of both reducing the dependency on expensive traditional fossil fuels and expanding access to power in remote areas. In Bolivia, the \$8.2 million GEF-supported Rural Electrification with Renewable Energy project is using solar photovoltaic (PV) systems and micro-hydroelectric plants to electrify over 3,400 rural homes and jump-start longer-term support for renewable energy systems in rural areas, to improve the quality of life in those areas and provide greenhouse gas benefits. Funding is channeled through rural microcredit institutions, which evaluate and qualify potential credit clients and pay supplier companies on behalf of the beneficiaries.

This innovative financing mechanism is proving so successful that the government is adopting it in other areas of rural development, such as the financing of tractors for small-scale farmers. The Government is also enacting the proposed elimination of import duties on PV panels. With a reduction in the rate now being applied to these panels of over 40%, this is opening the way for a potential market transformation.

# ENERGY



"Environmental issues in Bolivia can be classified under two broad categories: Those involving long-term management of natural resources and those directly affecting the daily livelihoods of significant portions of the urban population. Limited access to safe drinking water and adequate sewage systems, in addition to malnutrition, are the primary causes of the country's high morbidity and mortality rates. Bolivia is known to have forests that cover, approximately, half of its land surface area. Indeed, UNDP should look for projects where it could introduce incentives that not only increase income of the people but also sustainably conserve the forest."



## PORTFOLIO

**Antonio Molpeceres, Resident Representative**

### ENERGY

To assist Bolivia in adaptation to Climate Change, UNDP is supporting a rural area project, where high rates of poverty coexist with environmental risks, to evaluate the vulnerability and adaptation processes towards climate change with funding provided by the Government of the Netherlands. A second project to support the adoption of renewable energy technology to reduce GHG emissions is highlighted in the Spotlight. Finally, GEF funding to assist the Government in complying with the provisions of the UNFCCC, supporting the preparation of the Second National Communication on Climate Change.

### BIODIVERSITY

At a strategic level, UNDP has supported the completion of the National Biodiversity Strategy and Action Plan (NBSAP), with funding from GEF. The NBSAP process focuses on the assessment of requirements for the development of national capacity to address conservation and sustainable use of biodiversity, including legislation at the national level. At the project level, again with funding from GEF, UNDP is supporting the Titicaca biodiversity conservation project to promote the conservation and sustainable use of the biodiversity of Lake Titicaca through the design and implementation of community-based conservation, sustainable use and restoration activities, and the development of a Biodiversity Management Plan.

### CHEMICALS

UNDP has supported Bolivia's programmes directed at ensuring compliance with the Montreal Protocol since 1995. A total of 12 projects in the refrigeration, foams and methyl bromide (Me. Br.) sectors have contributed to the significant progress achieved by Bolivia with regard to protection of the ozone layer. The assistance programme currently being implemented includes: foam sector ODS phase-out for two enterprises; a terminal Me. Br. phase-out project; and, a terminal umbrella project for the commercial refrigeration sector.



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### PARTNERS

**Some of our Partners working with UNDP and the Government in Bolivia**

Government of The Netherlands



### Progress Towards Environmental Sustainability

Settlement processes as well as the expansion of agricultural borders have caused rapid deforestation in Brazil, particularly since the 1990's. The annual deforestation average was around 17.6 thousand square kilometers between 1994 and 2001. The estimate is that, if this rate is maintained, in little more than 30 years the devastated area will have doubled.

However, Brazil has a significant potential to develop reforestation and renewable energy projects in the scope of the Clean Development Mechanism for commercialization of carbon credits. As for ozone depleting gases, Brazil has satisfactorily achieved the targets of reduction of CFCs consumption according to established standards.

Brazil concentrates 13.7% of the surface freshwater of the world and its water production reaches almost 20% of the production of all countries. However, there is a share of the population that still has no access to adequate water supply services. In urban areas the percentage of the population with access to water supply systems increased from 88.3%, in 1992, to 91.3%, in 2002. In rural areas, however, coverage is much lower: the population served by the general water supply system increased from 12.3%, in 1992, to a mere 22.7%, in 2002.

The issue of access to basic sanitation is more worrisome. Out of the sewerage volume collected in the country, only one third is treated, which contributes to the deterioration of environmental conditions in Brazilian human settlements.

In Brazil, there has been an increase in the proportion of urban houses with appropriate housing conditions, increasing from 50.5% in 1992 to 59.5% in 2002. Despite improvement in average housing conditions of Brazilians, a considerable share of urban housing stock (41.5%) still presents some sort of housing inadequacy, either in relation to increased density, or to lack of water and sanitation services, ill-defined property rights, non-compliance with civil construction standards or houses built with non-durable materials.<sup>1</sup>

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$63,390,762
<b>Total UNDP and Co-Finance:</b>	\$469,831,410
<b>Total MPU and Bilateral:</b>	\$32,920,797
<b>Total:</b>	\$566,142,969

**Cumulative Total ODS Phased-Out:** 7,946.6 ODP tonnes

## SPOTLIGHT

### CSOs Build Partnerships and Networks for Environmental Conservation<sup>2</sup>

Brazil's Cerrado is open woodland of short twisted trees. Covering nearly a quarter of the country's total land area, the Cerrado is the second most important biome in Brazil, after the Amazon. However, approximately 70% is considered to have suffered from human pressures of some kind, including the expansion of the Brazilian agricultural frontier for grain production and cattle breeding, as well as unsustainable harvesting for charcoal production.

UNDP is implementing a project funded by GEF to protect areas near two national parks in the Cerrado that function as an ecological corridor. The project has encouraged the private sector and civil society organizations (CSOs) to participate in biodiversity conservation through the establishment of wildlife sanctuaries, known as private natural heritage reserves. Drawing on best practices, the project is establishing mechanisms for the sustainability of these private reserves and intends to disseminate the lessons and experience to other landowners.

Numerous CSOs are playing a significant role in the successful implementation of this project, including Funatura, which originally proposed the project, the Rural Worker's Union of Formoso Municipality, and the Community Association of Buracos. The participation of these organizations has encouraged institutions from a variety of sectors and the local community to become closely involved in seeing that the project's objectives are achieved. As a result of their partnership with UNDP-GEF, four fully-functioning private natural heritage reserves have been established, with management plans under operation. Awareness of best practices has been created among other landowners and a number of them now participate in the project. In addition, the technical staff of the private reserves have been trained in protected area planning and management, along with eco-tourism development. This project is an excellent example of how CSOs are building effective partnerships and networks in support of environmental conservation.\*

UNDP Brazil collaborates with the Government in promoting people-centred development and building partnerships with civil society to fight poverty. UNDP supports projects that promote growth with employment: growth that is environmentally friendly, growth that empowers people, and growth with equity.<sup>3</sup> “The rich and diverse portfolio of energy and environment projects of UNDP in Brazil reflects the country’s global importance in advancing MDGs and overall global environmental sustainability.”



**Carlos Lopes, Resident Representative**

## PORTFOLIO

### FSSD\*

UNDP is supporting Brazil's efforts to comply with and implement its commitments to international environmental agreements, and improve the impact of national sustainable development planning. For example, through activities such as strengthening capacity for environmental monitoring, and increasing stakeholder participation.

### WATER

To increase access to water and sanitation, UNDP is supporting Brazil's efforts in effective water governance. For example, through modernization of the sanitation sector, institutional strengthening, and improvement of water and sanitation services. This project is funded by the World Bank and contributes to improving Brazilians' quality of life and the environment. Another project, PROÁGUA, is working to strengthen government management capacity concerning water-related issues in northeastern Brazil, and is funded by the government. Activities include the creation of a methodology to determine the quality of on-going projects in the water sector, and the provision of effective tools for monitoring and evaluation.

### ENERGY

To increase access to sustainable energy service, and reduce GHG emissions, UNDP is implementing a number of projects in support of the Government's efforts in this area. The projects vary from encouraging clean transportation alternatives in the form of hydrogen fuel cell buses, to a “Light for All” to provide electricity to rural areas. Other programmes focus on increasing energy efficiency and assessing the feasibility of potential forms of renewable energy, such as, reducing the long-term costs of solar power generation.

### LAND

UNDP is supporting the adoption of sustainable land management practices in Brazil. For example, through projects funded by the World Bank, the Government, KFW, RFT, and UNDP resources, UNDP is working to assist the protection of land for indigenous peoples, to increase the opportunities for rural Brazilians to sell their products, help local communities to become more productive, and support ‘extractivism’, the gentle exploitation of the Amazonian environment.

### BIODIVERSITY

UNDP is supporting biodiversity conservation and sustainable use practices in Brazil which protect its globally significant ecosystems, while reducing poverty and providing sustainable livelihoods for local communities. UNDP's ongoing projects and programmes include, the development of ecological corridors, advocating sustainable environmental managerial practices, and improving the livelihoods of local populations through the promotion of natural resources protection.

### CHEMICALS

Through a programme of over 180 projects, UNDP's 15-year cooperation with Brazil under the Montreal Protocol has resulted in the acquisition of valuable knowledge, enhanced effectiveness of institutional performance, strong and synchronised policies, and direct impact to compliance maintenance. The integrated approach includes significant contributions to the solvents, foam and refrigeration sectors, where sustainable technology transfer and technical assistance methodologies are applied. Through the support of these programmes, Brazil developed the largest portfolio to phase-out the highest CFC consumption in Latin America.

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DFID	KFW	IFAD	IBRD
IDB	MLF	UNF	USAID
RFT	RFTF	Verace	
Government of Finland			
Government of Japan			
Government of The Netherlands			

<sup>3</sup>Brazil MDGR 2004 [http://www.undg.org/documents/5338-Brazil\\_MDG\\_Report\\_-\\_English\\_Version.pdf](http://www.undg.org/documents/5338-Brazil_MDG_Report_-_English_Version.pdf); \*UNDP-GEF, “Partners for Change”, 2005: [http://www.undp.org/gef/undp-gef\\_publications/publications/civilsociety\\_english.pdf](http://www.undp.org/gef/undp-gef_publications/publications/civilsociety_english.pdf) and GEF online database: <http://www.gefonline.org/projectDetails.cfm?projID=868>; <http://www.br.undp.org/>; \*Frameworks and Strategies for Sustainable Development

## CHILE



### MDG7

#### Progress Towards Environmental Sustainability

Chile adapted its environmental legal framework in 1994 to include Kyoto and Montreal Protocol alignments to promote sustainable standards for the national development agenda in order to progress on achieving the MDGs. This General Environmental Law implemented mechanisms to reduce GHG emissions in the industry sector as well as to increase the number of projects that fall under the Clean Development Mechanism. Despite private sector legal efforts, most households continue to use wood as their main source of energy as a result of high gas prices, especially in the rural areas. Burning wood for cooking has become the principal CO<sub>2</sub> emitter, forcing the government to develop policies to invest in gas infrastructure or to switch to cleaner stoves.

With a large coastal territory under its legislation, Chile has developed different kinds of marine biodiversity reserves along its shores and international waters. Between 1990 and 2000, the proportion of mainland covered by forest increased slightly, representing 20.93% of the country. Moreover, protected lands showed the same pattern, with a marginal increase from 18.02% in 1990 to 18.8% in 2004.

1% of the urban population and 1.5% of rural inhabitants lack access to safe drinking water facilities. Despite the fulfillment of MDG 7 Target 10, waste disposal and water treatment require major investment and a legal body to ensure and maintain a sustainable water supply both for production activities and livelihoods.

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$20,472,585
<b>Total UNDP and Co-Finance:</b>	\$210,386
<b>Total MPU and Bilateral:</b>	\$1,515,431
<b>Total:</b>	\$22,198,402

**Cumulative Total ODS Phased-Out:** 113.1 ODP tonnes

Chile has successfully implemented the Chile-Barrio programme in order to reduce the number of slum dwellers by making useful statistical information available for policy-making efforts. These governmental policies include monitoring mechanisms and promote participation in rural areas, where the results are encouraging.

Remaining challenges to achieving the MDGs in Chile include: the promotion of energy efficient policies to reduce ODS from wood-based cooking facilities and the protection of forests under legal legislation.<sup>1</sup>

## SPOTLIGHT



### Rural Electrification Using Renewable Energies<sup>2</sup>

There are an estimated 170,000 households without electricity in Chile's rural areas. Since many of these households are in isolated areas, beyond the cost-effective reach of the electricity grid, community or individual systems will be necessary to provide them with electricity. While gasoline and diesel generators are traditional options for electrifying isolated areas, renewable energy technologies, including solar photovoltaics (PV), wind and hydro, could be less costly in certain locations.

The GEF-supported project of US\$ 6 million with co-financing of US\$ 26.3 million aims to supply electricity using Non-Conventional Renewable Energies (NCRE) to approximately 10,320 households currently without access to electricity, and to develop market conditions that will enable NCRE to compete with conventional energy sources in both rural and urban areas. The project will enable a decrease in the GHG emissions produced by energy sources in rural areas – often diesel-fuelled – and improve the living conditions of rural communities.

The project, which commenced in September 2001 and ends in October 2006, has developed a portfolio of 56 NCRE projects through careful assessment and analysis of energy needs as well as of the economic and natural resources available in the different regions and communities throughout the country. In cooperation with the National Normalization Institute, a total of 43 technical standards for rural electrification using NCRE are in development and will be published by 2006. 21 wind and solar monitoring stations have been installed throughout the country to map wind patterns and radiation levels – information essential to the preparation of projects utilizing wind and solar power.

12 smaller-scale PV demonstration projects that will install a total of 3,347 panels have been developed for execution between 2004-2006 and the current portfolio of projects is estimated to avoid 66,690 metric tons of CO<sub>2</sub> emissions by 2020.



Chile is working to fulfill its international commitments in energy and environment. At the same time, it is increasing the quality of life of its citizens and fulfilling MDG 7 for environmental sustainability. The Government of Chile and UNDP are working in the areas of biodiversity conservation, climate change mitigation, and ozone layer protection.<sup>3</sup> "Sustainability is becoming a permanent dimension of UNDP in Chile and also an important part of activities in areas like modernization of the state, the reduction of poverty, decentralization, the equality of sorts and, of course, human development".



**Irene Philippi, Resident Representative**

## PORTFOLIO

### FSSD\*

To assist Chile's work to improve the impact of its sustainable development planning, UNDP is supporting a GEF-funded National Capacity Self-Assessment (NCSA) project to assess the country's needs, capacities, and strengths regarding biodiversity, climate change and desertification. In addition, Chile's Sub-regional Sustainable Development Action Programme, funded by the Government, is being implemented through a project aimed to develop Puna Americana.

### ENERGY

UNDP's Sustainable Energy Thematic Trust Fund, is funding a project to support the development of a National Energy Policy in Chile, focusing primarily on the implementation of energy efficiency practices, and the increased use of renewable energies. Another project is enabling Chile to meet its reporting obligations under UNFCCC, leading to the production of a National Communication on Climate Change. This project is funded by GEF. The Spotlight section highlights a GEF-funded programme to remove the barriers to rural electrification, increasing access to sustainable energy services and reducing GHG emissions.

### LAND

UNDP is supporting the promotion of sustainable land management practices in Chile. For example, a land management project is assisting the Government in the development of a framework to enable the agricultural production of small farmers to be integrated into and take advantage of the globalization process. Funding for this project is provided by the Government.

### BIODIVERSITY

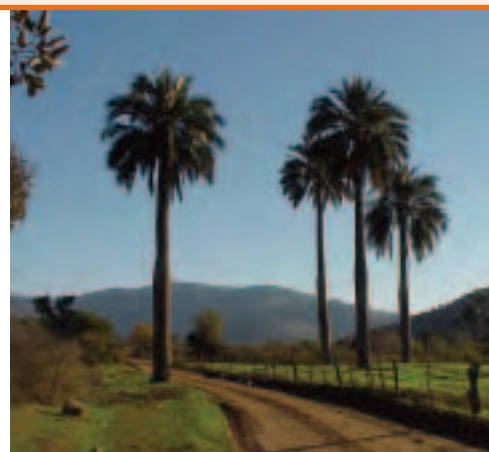
To further the conservation and sustainable use of biodiversity, UNDP is implementing several projects in Chile with funding from GEF. For example, one project is assisting the Government of Chile to build capacities in the identification, conservation, and management of Chile's biological diversity. Another project is taking a bio-regional approach to biodiversity conservation, ensuring conservation within the Chiloé national park, while at the same time demonstrating biodiversity-friendly alternatives in the wider Chiloé landscape. Two further projects are developing conservation plans for sustainable use of biodiversity in the Salar del Huasco and in Valdiviano Forest.

### CHEMICALS

Under the assistance programme that aims to enhance capacity to comply with Montreal Protocol targets, UNDP is working with Chile in the solvents, refrigeration and methyl bromide sectors. Phase-out of ODS solvents is being achieved through training and assistance to solvents producers and by making available alternative solvents for trials and training in formulation of non-ODS alternatives. In the refrigeration sector, UNDP is assisting with development of a commercial refrigeration project, while in the methyl bromide sector a demonstration and phase-out project is being implemented in soil fumigation for fruit tree production and replant. The implementation methodology in the latter includes demonstration of alternatives and assessment of their technical and economic feasibility. Training and extension programmes are also being developed to ensure sustainable adoption of alternatives.

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<sup>1</sup>Chile MDGR 2005 <http://www.undp.org/rblac/mdg/Chile.pdf>; <sup>2</sup>UNDP, Energy Projects Online Database, 'Removal of Barriers to Rural Electrification with Renewable Energy', 2005, available at: <http://www.undp.org/energy/prodocs/rblac/chi00g32.htm> and GEF Online projects database: <http://www.gefonline.org/projectDetails.cfm?projID=843>; <sup>3</sup><http://www.pnud.cl/enchile.htm>; <sup>4</sup>Frameworks and Strategies for Sustainable Development

## COLOMBIA

### SPOTLIGHT

#### A Decade of Successful Cooperation<sup>1</sup>

UNDP's partnership with Colombia to meet its requirements under the Montreal Protocol illustrates the multi-dimensional character of UNDP's assistance programmes, which focuses on making an effective contribution to the country's overall development framework.

Colombia became a party to the Montreal Protocol in 1993, joining international efforts towards the protection of the ozone layer through phasing-out consumption of ozone-depleting substances (ODS). UNDP, as one of the four implementing agencies of the Protocol's Multilateral Fund, entered into a partnership with Colombia to support the adoption of affordable alternative technologies.

UNDP's technical assistance and technology transfer projects are based on considerable experience and developed in a harmonized manner, enabling the implementation of the most effective methods, and facilitating successful cooperation with other implementing agencies. UNDP's assistance has focused on the refrigeration and foams sectors where the implementation of 30 projects, besides generating direct ODS phase-out impact, have created very successful public-private partnerships.

Cooperation initiatives have also included capacity building of national institutions to enhance performance and enable them to respond to the obligations of the ozone regime, to technical assistance and technology transfer for ODS phase-out. Through the implementation of institutional strengthening projects, Columbia's Ozone Technical Unit has evolved into a strong national body, coordinating ozone-related policies, programmes and activities. In addition, the support provided has enabled Colombia to organize and actively participate in relevant regional and international activities and events.

Over a decade of successful partnership has brought significant progress – mobilization of approximately US\$ 12 million has resulted in the direct phase-out of 1,063.7 ODP m. tonnes consumption in the refrigeration and foams sectors. In particular, the elimination of CFCs in domestic refrigeration stands out as a significant achievement; 470,206 units in total benefited from the assistance, with 226 ODP tonnes phased-out as a result of mobilization of US\$ 4,495,249.



## QUICK FACTS

#### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$27,515,000
<b>Total UNDP and Co-Finance:</b>	\$357,758
<b>Total MPU and Bilateral:</b>	\$5,020,042
<b>Total:</b>	\$32,892,800

**Cumulative Total ODS Phased-Out:** 1,063.7 ODP tonnes



Colombia has one of the most important biodiversity reserves in the world. Its flora and fauna are rich because of the different geographic conditions as well as the country's climate. The conflict, illegal crops, lack of advisability to protect the environment in mining operations, and industrial and agricultural activities are real threats that have a huge impact on Colombia's environment. UNDP Colombia's energy and environment projects are the foundations to minimize these threats and tend to preserve the incomparable richness that Colombian nature has to offer.<sup>2</sup>

**Alfredo Witschi-Cestari, Resident Representative**

## PORTFOLIO

### ENERGY

To support access to energy services and thereby reduce poverty, UNDP is assisting the development of an energy pilot programme, through a biomass and biodiesel project funded by the Government. In terms of adaptation to climate change, UNDP is implementing a project funded by the World Bank to consolidate and strengthen the national Climate Change Office, in order to enable the development of tools and capacities to evaluate projects under the Kyoto Protocol alignments and the promotion of the project portfolio under the CDM. GEF is also funding a project to assist the Government to design a capacity-building project programme to eliminate barriers to the development and implementation of energy efficiency measures.

### BIODIVERSITY

As part of UNDP's efforts to support the conservation and sustainable use of Biodiversity in Colombia, UNDP is implementing the "Conservation of Montane Forest and Paramo in the Colombian Massif" project to promote biodiversity conservation within the Massif eco-region, through the consolidation of the protected areas system. This project will include national parks, communal land and indigenous territories. Funding for this project is provided by GEF.

### CHEMICALS

UNDP chemicals' programme for Colombia is presented in the Spotlight. In addition to its development activities, UNDP also provides execution services for other agencies working with Colombia. Currently, UNDP is assisting with the execution of the enabling activity for Persistent Organic Pollutants that is being implemented by the World Bank.



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### PARTNERS

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World Bank

<sup>1</sup>UNDP and the Unidad Técnica Ozono, "10 años de la implementación del Protocolo de Montreal en Colombia", 2003: <http://www.pnud.org.co/publicaciones/LibroOzono.pdf>;  
<sup>2</sup><http://www.pnud.org.co/ema/>

## COSTA RICA



### Progress Towards Environmental Sustainability

Sustainable development regulations have been integrated in Costa Rica's national political framework. Since 1997, Costa Rica has consolidated its environmental legal framework by developing 4 agendas. The Green Agenda regulates natural resources and biodiversity; the Brown Agenda focuses on soil and urban development; the Gray Agenda addresses air pollution, and the Blue Agenda aims to integrate water resources into the policy making arena.

Costa Rica has achieved the MDG targets for access to safe drinking water and for significant improvement in the lives of slum dwellers. In 2003 around 97% of the total population had access to safe drinking water, and only 2% of the population lived in slums.

Much still needs to be done, however, to minimize natural resource degradation. Unregulated cattle settlement, overexploitation of agriculture soils and mass tourism evince the necessity to develop an environmental policy to promote participation and coordination at the local, national and international level.

In 2004, the National Environmental Strategy was created to consolidate a national and integrated body to develop, promote, implement and evaluate environmental policies. As a result, the National System of Environment Information will be launched, creating a socio-environmental index which will facilitate and focalize the policy making process.

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$4,910,207
<b>Total UNDP and Co-Finance:</b>	\$190,000
<b>Total MPU and Bilateral:</b>	\$4,176,122
<b>Total:</b>	\$9,276,329

**Cumulative Total ODS Phased-Out:** 375.2 ODP tonnes

Costa Rica is one of 20 countries with higher biodiversity, with around 500,000 species and 1,594 endogenous ones. However, achievement of the MDGs and the protection of national biodiversity will still require constant monitoring of the implemented programmes as well as political commitment to allocate resources where needed.<sup>1</sup>

## SPOTLIGHT

### Refrigerant Management Plan Reduces ODS<sup>2</sup>

In order to meet its commitments to the Montreal Protocol, Costa Rica is required to gradually reduce the consumption of Ozone Depleting Substances (ODS), of which CFCs account for a significant portion, with support from the Multilateral Fund to the Montreal Protocol. In 2004, with assistance from UNDP, the Government of Costa Rica initiated the execution of the Refrigerant Management Plan(RMP), which aims to reduce CFC consumption in the refrigeration servicing sector. The project promotes replacing or permanently retrofitting existing refrigeration equipment in order to use refrigerants less damaging to the ozone layer.

Over half the CFC consumption is used for servicing purposes in the fishing sector. This sector is subject to a very critical economic situation, operating under marginal conditions, and is unable to comply with CFC phase-out on its own. In addition, there is a persistence of bad servicing practices in the refrigeration sector.

Since its inception, the project has been very successful in promoting dialogue with stakeholders in the fishing industry and their associations. The Montreal Protocol obligations have now become a business opportunity for the fishermen, and with financial and technical assistance from the project, they now have an economic incentive to improve or replace their obsolete refrigeration equipment. The project has also been innovative with respect to building strategic alliances with two banks, thus facilitating access to credit for the fishermen to cover their part of the commitment. The effort is complemented by training refrigeration technicians in order to ensure long term sustainability.

By continuing this successful implementation, the project will eliminate the consumption of 99.77 ODP tonnes of CFC by 2007, thus enabling the country to meet its 2005 and 2007 CFC reduction obligations under the Montreal Protocol.



UNDP Costa Rica is implementing better practices that will allow the country to reduce negative environmental impacts. By closely working together, UNDP and Costa Rica can reduce its ecological footprint, promote the sustainable use of the country's natural resources, and to fight global environmental problems like climatic change.<sup>3</sup> UNDP promotes environmental sustainability by exploring with communities the long term economic benefits of the conservation of their surroundings through activities such as rural community tourism and commercial activities in the vicinity of national parks.



## PORTFOLIO

**Jose Manuel Hermida, Resident Representative**

### ENERGY

To support the Government to address and adapt to climate change, UNDP is implementing a new GEF regional project to remove barriers to the implementation of energy efficiency measures and promote a market transformation for the efficient use of electricity in the industrial and commercial service sectors in Central America. The project aims to reduce CO2 emissions and electricity demand growth, and focuses on motors, air conditioning, and refrigeration. Another GEF project is assisting Costa Rica to prepare its Second National Communication to the UNFCCC, a national report on climate change issues, including a national GHG inventory, abatement analysis and vulnerability and adaptation assessments.

### BIODIVERSITY

As part of UNDP's efforts to support the conservation and sustainable use of biodiversity in Costa Rica, a GEF-funded project is working to improve the management of the Cocos Island Marine Conservation Area. The specific goals of the project are: strengthening conservation practices, ensuring the long-term reduction of threats to the island, promoting the sustainable development of its natural resources, and conserving its globally important biodiversity.

### CHEMICALS

The support provided to Costa Rica's Montreal Protocol compliance programme began in 1991, and in addition to the implementation of the Refrigerant Management Plan, illustrated separately in this report, UNDP is assisting the Government and stakeholders through continuous institutional strengthening projects and a methyl bromide (Me. Br.) phase-out programme that aims at implementation of alternative technologies for total, accelerated Me. Br. phase-out in the country.



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### PARTNERS

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## CUBA



### Progress Towards Environmental Sustainability

MDG7

Forest fires have been a major constraint to the rapid expansion of forest-land in Cuba. Currently, forests cover 24% of Cuba's total land area. Government programmes have been somewhat successful in increasing forestlands and in developing strategies for foresters to prevent and minimize forest fire impacts.

Since the last decade, protected areas have been included in Cuba's national legal framework. Cuba currently has 35 protected areas, with pending approval for an additional 23, which will include national parks, ecological reserves and biodiversity reserves. Moreover, 6 Reserves of the Biosphere 2 are under UNESCO World Heritage Site legislation.

Cuba has been reducing carbon dioxide emissions thanks to national programmes that promote the modernization of industrial engines as well as the efficient use of energy by the population. Educational programmes highlight the important links between environment and economic development in order to develop effective regional strategies.

By 2003, most of the urban population had access to safe drinking water, thereby fulfilling MDG target 10. Despite this positive prospect, however, Cuba continues to face challenges regarding access to water supply and adequate water facilities in rural areas. Some of these problems include old and dysfunctional water pipelines and leakages.

Intensive dry seasons and tropical storms are major constraints to efforts to improve the living conditions of slum dwellers. Allowing foreign investment to fund community projects towards infrastructure are essential to enhancing Cuba's housing conditions.

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$89,374,710
<b>Total UNDP and Co-Finance:</b>	\$7,768,013
<b>Total MPU and Bilateral:</b>	\$6,563,286
<b>Total:</b>	\$103,706,009

**Cumulative Total ODS Phased-Out:** 231.8 ODP tonnes

The Government has worked to integrate the principles of sustainable development into Cuba's national development programme. Despite this effort, inadequate dissemination of new technologies, bureaucracy, and lack of funding remain major obstacles to achieving environmental sustainability in Cuba.<sup>1</sup>

## SPOTLIGHT

### Energy Efficient Refrigerators Reduce GHGs and Human Health Problems<sup>2</sup>

Cold appliances such as refrigerators and freezers account for at least 2% of the world's emissions of CO<sub>2</sub>, thus significantly contributing to global climate change and poor air quality. Cuban refrigerators are on average relatively energy inefficient, therefore a tremendous opportunity exists to significantly decrease both the energy used and the resulting emissions by introducing more energy-efficient models into the market. In addition, since refrigerators can be used for many years, such an initiative can pay dividends for decades to come.

This was the objective of a UNDP-GEF project in Cuba assisting in the manufacture of energy-efficient refrigerators without the use of ODSs. The project was supported by a grant of US\$ 0.75 million and co-financing of US\$ 6.9 million. Based on UNDP-GEF's successful work in China, as well as other research, the project began in 2000, working with the country's sole refrigerator manufacturer, the *Industria Nacional Productora de Utensilios Domésticos*, to produce a new type of refrigerant compressor that reduces electricity consumption. Designers combined the compressor with more efficient insulation – produced without the use of ODSs – resulting in a refrigerator that uses 470 kilowatt-hours less each year than previous versions – a significant energy saving.

Today, Cuba manufactures refrigerators that are more energy efficient than most appliances marketed in the region or imported into Cuba. Since the project's completion in 2003, an estimated 20,000 new-model refrigerators have been introduced in Cuba, and 430,000 are expected to be produced over the next 15 years. Over that same period, over 1.5 million tonnes of CO<sub>2</sub> emissions will have been saved as a direct result of these investments. As a result, approximately 65,000 tonnes of CO<sub>2</sub> emissions have already been avoided to-date.

Cuba has developed an important programme of activities and projects in energy and environment. The programme promotes the interrelation of processes and stakeholders at the local, national, regional and international levels and is implemented within the overall framework of the MDGs. The key to the success of the UNDP projects and programmes in Cuba is its close interrelation and harmony with the national government policy, establishing that energy and environment issues are one of the pillars of any sustainable development strategy.<sup>3</sup>



**Bruno Moro, Resident Representative**

## PORTFOLIO

### WATER

UNDP is supporting effective water governance in Cuba to increase access to water and sanitation, and improve the environment. Projects include supporting the National Programme of Sanitation, improving water quality and people's environmental and living conditions, demonstrating technology and capacity-building at the local level for managing contamination problems within the Havana Bay watershed, and contributing to the sanitation of the Luyanó river – one of the main sources of pollution in Havana Bay. Funding is provided by GEF and the governments of Belgium, Norway and Italy.

### ENERGY

UNDP's efforts to promote access to sustainable energy and reduce climate change in Cuba are supported by funding from GEF, the Government of Norway, and PGTF. For example, one project is developing an electricity and steam co-generation facility using sugar-cane bagasse and garbage, using waste from local sugar mills. By demonstrating the technology and removing barriers to its large-scale replication, the project will reduce start-up costs for similar future installations. In terms of climate change, UNDP is assisting Cuba to take full advantage of the CDM, by supporting the development of decision-makers' technical capacities.

### LAND

To promote the adoption of sustainable land management practices in Cuba, UNDP is implementing a range of projects with support from GEF, CIDA, UNDP resources and the Government of Italy. For example, UNDP is assisting Cuba's response to drought through the development of vulnerability assessments and adaptation strategies at the local level. The application of this framework will demonstrate how adaptation policy can be integrated into national sustainable development. Two other projects are developing risk management strategies for climate change, while a fourth project is implementing site-specific interventions to demonstrate practices for the prevention of land degradation, conservation, and rehabilitation of ecosystem integrity.

### BIODIVERSITY

To promote the conservation and sustainable use of biodiversity in Cuba, UNDP is implementing projects funded by GEF, FFEM, and UNDP resources (including Capacity 21), for example by protecting the ecosystem of the Sabana Camaguey Archipelago. Three projects are working to establish protected areas, build capacities and consolidate processes to enhance their long-term sustainability, and prepare new projects to promote operational changes in the tourism, fisheries and agriculture sectors. Three further projects are strengthening the operation of protected areas by creating management strategies for the control of threats, designing education programmes, and supporting human development actions to improve the quality of life of communities living in the areas.

### CHEMICALS

UNDP's 10 years of support to Cuba's compliance needs under the Montreal Protocol (MP) have contributed significantly towards the enhancement of the country's institutional ozone-protection programme systems. In particular, institutional strengthening assistance has enabled Cuba to establish and develop effective legislative and regulatory mechanisms under the MP programme. In the aerosol sector, a project to phase-out CFC-12 in the manufacture of insecticides and technical aerosols is being implemented. In addition, and perhaps of most importance to Cuba, where asthma is a major concern, the phase-out of CFC consumption in the manufacture of aerosol metered dose inhalers (MDIs), and conversion to ozone-friendly MDI production is underway with the assistance of UNDP.

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CIDA PGTF FFEM  
Government of Belgium  
Government of Cyprus  
Government of France  
Government of Italy  
Government of Norway  
Government of Sweden

<sup>3</sup>Cuba MDGR 2005 <http://www.undp.org/cu/mdg.html>; 'UNDP-GEF, 'Meeting the Climate Change Challenge, Sustaining Livelihoods', 2004, available at: [http://www.undp.org/gef/undp-gef\\_publications/publications/climate\\_change\\_brochure2004.pdf](http://www.undp.org/gef/undp-gef_publications/publications/climate_change_brochure2004.pdf) and GEF Online database, available at: <http://www.gefonline.org/projectDetails.cfm?projID=804>; <sup>4</sup><http://www.undp.org/cu/energia.html>

## THE DOMINICAN REPUBLIC



### Progress Towards Environmental Sustainability

MDG7

The degradation of natural resources in Dominican Republic has been a major challenge to achieving the MDGs. A governmental satellite image study showed an increase in deforestation from 14.1% in 1990 to 27.5% in 1996. The implementation of public policies aiming to reduce deforestation rates led to the enlargement of protected areas. In 1998 around 16.2% of the Dominican Republic's territory fell under protected area legislation and by 2000 this rate increased to 19%.

In 2000, the Dominican Republic was able to provide access to safe drinking water services to 86% of the total population. If the population growth rates continue as expected, and inadequate urbanization policies persist, achievement of Target 10 of MDG 7 will become a more difficult challenge.

Lack of environmental statistical information has made it difficult to measure the proportion of the population living in slums. In order to set national standards regarding Target 11 of MDG 7, there is a pressing need for increased allocation of economic resources.

The environmental legal framework in Dominican Republic was reformed and updated to include MDG standards, but it is facing political instability and detached policies. The new legislation will serve as a foundation from which to develop policies towards equity, justice and social participation, if economic development programmes and sustainable development policies are effectively interlinked.

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$13,130,103
<b>Total MPU and Bilateral:</b>	\$595,000
<b>Total:</b>	\$13,725,103

**Cumulative Total ODS Phased-Out:** 233.3 ODP tonnes

Achievement of the MDGs in the Dominican Republic will require integration of fiscal policies to generate economic incentives towards sustainable development. Strong institutions and investment in human capital, especially women, will be fundamental to accomplish these goals.<sup>1</sup>

## SPOTLIGHT

### Protecting Forests Using Micro-hydropower for Domestic and School Lighting<sup>2</sup>

Approximately two million people in the rural areas of the Dominican Republic have no access to electricity. Without electricity, communities are isolated with little opportunity for economic improvement. In the El Limón Community, situated in the mountains west of Santo Domingo, villagers used to harvest wood for making charcoal, rapidly depleting forest resources. Poor quality kerosene was also the main source of energy for lighting, leading to severe problems of indoor air pollution.

The community initiated the construction of an irrigation system to pipe water into the village from a stream six km away with the financial and technical support of a local NGO in the early 1990s. In 1997 a local organization, representing El Limón received US\$ 27,500 from the GEF Small Grants Programme to support a 1-year project to establish a micro-hydropower scheme, built by the community, to provide electricity for lighting homes and the local school. Electricity produced by the water during the day is used at the school, where it powers computers and lighting. At night, the electricity is used for lighting homes. Later in the project, the Inter-American Foundation donated money for laptop computers and video equipment and helped to set up Internet access at the school that does not depend upon telephone lines.

As a result of the project, households no longer use kerosene. Instead, they rely on hydroelectric power, thereby reducing GHG emissions. In addition, since the hydroelectric system was built, the people of El Limón have begun to protect the local forest, as it provides a filtering system for the area's sparse rainfall, without which hydroelectric power generation would not be possible. El Limón has also begun an educational campaign to inform other local communities about the importance of protecting the forest.



UNDP promotes the use of sustainable energy, from mini-hydroelectrics as much as the use of solar power at the local level.<sup>3</sup> UNDP's support has not only allowed the community (El Limon) to build their own mini-hydroelectric from scratch, including poles and bulbs, but even more, to generate a whole sustainable development process. Electricity has allowed the community to enhance its sustainable livelihood opportunities and secured access to information through the use of the web, with all its benefits. Other communities have seen what is happening, and the model is spreading throughout the Dominican Republic.

**Niky Fabiancic, Resident Representative**

## PORTFOLIO

### ENERGY

UNDP is promoting access to sustainable energy in the Dominican Republic through a project to support the final development, adoption and promotion of a Dominican Republic Global Energy Partnership. The Partnership aims to promote energy, in particular renewable energy, as a means for rural development. This project includes an evaluation of the lessons learned from previous initiatives, particularly projects supported by funding from the Dominican Republic, UNDP, GEF, and SGP. The project will assist the development of national regulations for the use of the Renewable Energy Fund, generated by taxes from government regulations on the importation of gasoline and other related products.

### CHEMICALS

For over 10 years UNDP has been assisting the Dominican Republic with the means to reach and maintain compliance under the Montreal Protocol. The programmes have contributed to significant advancement of phase-out of ODS in the foams, halons, refrigeration and solvents sectors, through the implementation of 12 projects. Currently, a national halon bank is being established, and a terminal phase-out management plan in the refrigeration servicing sector has begun implementation.



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<sup>3</sup>Dominican Republic MDGR 2004 [http://www.undp.org/documents/5510-Dominican\\_Republic\\_MDG\\_Report.pdf](http://www.undp.org/documents/5510-Dominican_Republic_MDG_Report.pdf); <sup>4</sup>GEF-SGP, 'Responding to Climate Change, Generating Community Benefits', 2003; <http://sgp.undp.org/download/SGPCC.pdf>; <sup>5</sup><http://portal.onu.org.do/interfaz/main.asp?Ag=16&did=52&CategoriaNo=5&N=1>

## ECUADOR



### SPOTLIGHT

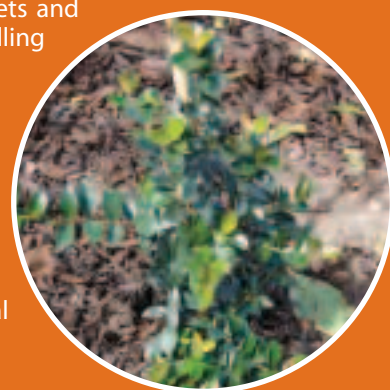
#### Biogas Production Improves Pupils' Health, Increases Incomes and Protects the Environment'

Santa Maria del Fiat is a large educational complex on the coast of Ecuador, which houses 1000 students and 200 orphaned children. The complex lacked an adequate sewage system, and biological waste and residual wastewater was simply dumped off the cliffs into the ocean, threatening marine biodiversity. Nearby open spaces were also used as dumping grounds, causing bad odors and beginning to contaminate the groundwater – a major health hazard.

In 2000 the GEF Small Grants Programme contributed US\$ 24,115 to help the NGO Fundación Ecuatoriana Santa Maria del Fiat implement a pilot project to produce biofertilizer and biogas using the sewage and wastewater. The project built a biodigester into which human and animal waste is deposited in order to produce the biogas and biofertilizer. The school's stoves were adapted to use biogas, and now the school uses 60% less butane gas for cooking. The school also built a water reclamation system, which cleans soapy water for use in laundry facilities, toilets and plant watering. Furthermore the biogas unit produces a biofertilizer, which the school is selling and using in its own orchards.

The project has resulted in very important health benefits. Since biological waste is now placed in the biodigester instead of being dumped in the area, the risk of disease is lower and the danger of water supply contamination is reduced. In addition, the school generates added income as it receives 45% of the proceeds from the sale of biofertilizer, and now purchases less butane gas and water.

Active community involvement played a large part in ensuring the success of the project, and as a result of this positive pilot the school has set a target to install at least two additional biodigesters.



# CLIMATE CHANGE

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$32,776,320
<b>Total UNDP and Co-Finance:</b>	\$2,900,000
<b>Total:</b>	\$35,676,320



UNDP Ecuador is committed to environmental conservation and sustainable development. For example, the level of success regarding the eradication of invasive species in the Galapagos is unique and the effect of the eradication is immense, considering the importance of the biodiversity of the islands. The country has a great potential for productivity and UNDP support is directed towards improving the quality of life in Ecuador.<sup>2</sup> Human development and conservation of biodiversity do not have to be in contradiction. UNDP works with the Government on involving communities at all levels in income-generating conservation projects.

**Rene Mauricio Valdes, Resident Representative**

## PORTFOLIO

### FSSD\*

UNDP is supporting the development of the Environment Ministry's institutional capacity through the National Strategy project, funded by UNDP resources, with the aim of improving international cooperation and maximizing external economic resources. In addition, UNDP is implementing the GEF-funded National Capacity Self-Assessment (NCSA) process in Ecuador to establish its priorities and capacity needs to address global environmental issues, particularly its commitments to the conventions on biodiversity, climate change and desertification. The process also aims to ensure internal and/or external aid and coordinate the distribution of economic resources.

### ENERGY

UNDP's work in Ecuador to address the problems of climate change and reduce GHG emissions is funded by GEF. For example, one project is encouraging bicycle use in Quito as a clean alternative means of transportation, while another project, is working to reduce CO2 emissions in the Galapagos Islands, by promoting a change from fossil fuel to solar and wind-powered energy. In terms of Ecuador's commitment to the UNFCCC, UNDP is supporting the Government to assess ongoing activities and goals achieved to produce its Second National Communication to the Convention.

### BIODIVERSITY

UNDP's support to biodiversity conservation and sustainable use in Ecuador includes a project funded by the Government of Italy to promote the integration of human development and biodiversity conservation in the National Institute of Galapagos. Another project, the "Galapagos Oil Spill - Environmental Rehabilitation and Conservation" programme, aims to prevent and reduce oil spills, and promote human and environment stability in the islands, and is funded by GEF, as is a third project, which is developing a strategy to involve the private sector in biodiversity conservation, through the protection of private forested land, increasing the total protected land in the country.



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### PARTNERS

#### Some of our Partners working with UNDP and the Government in Ecuador

E-7	KWF	FCD
AECI	INGALA	SPNG
CONELEC		
ELECGALAPAGOS		
Government of Italy		

<sup>1</sup>Ebrahimian, E and Gitonga, 'Community Action to Address Climate Change', GEF SGP, 2004: <http://sgp.undp.org/download/SGPCaseStudiesBook.complete.pdf> and SGP Online database: <http://sgp.undp.org/index.cfm?Module=Projects&Page=ShowProject&ProjectID=4482>; <sup>2</sup><http://www.pnud.org.ec/Desarrollosostenible.php>; \*Frameworks and Strategies for Sustainable Development



## EL SALVADOR



### Progress Towards Environmental Sustainability

MDG7

El Salvador lacks relevant and precise information on deforestation rates and as a result, a governmental initiative was launched to create a forestry inventory. In 1990, 9.3% of national territory was covered by forest, which decreased to 5.8% in 2000. Protected areas also suffered lack of regulation; they only account for 0.4% of total land surface area. To achieve this MDG target, El Salvador needs to increase the proportion of protected areas to 2.5% by 2015. This would involve the management, increase and regulation of forest and protected areas, all of which need strong commitment from the public and private sectors.

To reduce by half the population without access to safe drinking water facilities, El Salvador needs to strengthen institutional capacity. Progress has already been made: between 1990 and 2002, the proportion of people with access to safe drinking water increased from 76% to 88%, respectively. This increase was more significant in the rural areas: from 57% to 74% for the same time period. El Salvador has achieved significant improvements, especially in increasing the percentage of the population with access to safe drinking water facilities, particularly in the rural areas, as a result of adequate allocation of economic resources towards promoting effective water management and distribution.

Some of the major challenges that lie ahead for environmental sustainability in El Salvador include: allocating more economic resources towards the environment sector, integrating and implementing environmental legal frameworks and promoting environmental education and awareness.<sup>1</sup>

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$882,000
<b>Total UNDP and Co-Finance:</b>	\$27,985,281
<b>Total MPU and Bilateral:</b>	\$378,000
<b>Total:</b>	\$29,245,281

**Cumulative Total ODS Phased-Out:** 115.2 ODP tonnes



## SPOTLIGHT



### National Dialogue Promotes Integrated Water Resources Management<sup>2</sup>

The main challenges affecting water management in El Salvador are the lack of strong water policies, the absence of legal frameworks and a centralized and fragmented water governance administration. In addition, social participation in water management needs to be strengthened in order to ensure long-term supply and reduce future stress on existing supplies of water.

UNDP, the Global Water Partnership (GWP), and CARE convened to support a national dialogue on "Water, Governance and Poverty". GWP provided funding of US\$ 50,000. This initiative contributed to the coordination of the efforts of the main national actors in relation to problems of water management and its implications for development and governability in the country. The dialogue opened the door for linking the interests of a diverse group of political, economic and social actors involved in the management and handling of water resources in the country. This process was part of the GWP's Global Dialogue, which supported the preparation of national presentations at the "Third World Water Forum" in Japan, March 2003.

This process has since enabled the active participation of different actors and stakeholders from both local and central government, academia, CSOs, the private sector, and donors in developing various projects and initiatives to build a coherent national water agenda. In a joint effort, these actors have established a series of commitments to build a new national, legal, and institutional framework for the water sector to achieve identified medium and long-term results.

# WATER



In El Salvador, UNDP contributes to the expansion of sustainable environmental initiatives, facilitating policy making processes and institutional and legal strengthening, with the participation of different stakeholders. UNDP is presently working on three main environmental areas (Biodiversity-Ecosystems, Renewable Energy Promotion, and Water Governance) to respond to national strategies and needs in order to achieve the MDGs. Local and national capacity building, establishment of strategic partnerships, and implementation of productive environmental friendly projects, are some of the strategic activities implemented towards an integrated approach to ensure human sustainable development.



**Beat Rohr, Resident Representative**

## PORTFOLIO

**FSSD\*** UNDP is supporting El Salvador to fulfil its commitments to international environmental agreements through the GEF-funded National Capacity Self-Assessment (NCSA) for Global Environmental Management, which is establishing an Action Plan to accomplish El Salvador's global and regional environmental priorities. UNDP is also supporting the promotion of citizen participation in public policy on trade and environment, through the "Environmental and Municipality Action Plan".

**WATER** To promote effective water governance in El Salvador, UNDP is designing a strategy to create a knowledge management system, which will facilitate the collection and development of knowledge on water resources in the country, based on partnerships between information generators and water-users. Funding is provided by the Nordic countries.

**ENERGY** UNDP is working to increase financing for energy projects in El Salvador by promoting a debt swap mechanism to finance renewable energy projects. A variety of GEF-funded projects are also working to address the problems created by climate change and reduce GHG emissions. For example, one programme is promoting the use of bicycles for personal transit and light-cargo transport in urban centres, while another is working to identify and remove barriers to energy efficiency measures in the industrial and commercial service sectors. At the policy level, UNDP is supporting the development of national capacities to respond to the country's commitments to the UNFCCC, and the application of a National Adaptation Policy Framework to demonstrate the integration of adaptation policy into national sustainable development.

**LAND** UNDP is promoting sustainable land management in El Salvador, for example by the implementation of an environmental programme to protect the natural resources of the Upper Lempa River Watershed through agroforestry and soil conservation activities. The programme is funded by the Inter-American Development Bank.

**BIODIVERSITY** Funded by GEF, UNDP is assisting El Salvador in the preparation of its Third National Report on Biodiversity for submission to the Convention on Biological Diversity. UNDP Guatemala is also participating in the regional project, "Central American Markets for Biodiversity", which is working to mainstream biodiversity conservation and sustainable use within micro-, small, and medium-sized enterprise development and financing. Also funded by GEF is a programme for the Consolidation of the Mesoamerican Biological Corridor that integrates and initiates implementation by providing technical assistance and provides a system of integrating conservation and sustainable uses of biodiversity within the framework of economic development priorities. An Ecoservices project promotes the integrated management of the eco- and agro-systems in El Salvador

**CHEMICALS** Addressing country needs for compliance with measures of the Montreal Protocol and the Stockholm Convention on POPs, UNDP's programme in El Salvador includes projects in both areas. Four initiatives target the refrigeration sector through provision of basic service tools and incentives to technicians, and promote recovery/recycling operations throughout the country. Additionally, technical assistance that aims at certification and licensing of refrigeration technicians is being provided. Under the Stockholm Convention compliance programme, assistance is provided through implementation of an enabling activity that will result in the development of a National Implementation Plan for POPs.

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### PARTNERS

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IDB  
World Bank  
Nordic Funds  
Government of Finland  
Government of Japan

<sup>1</sup>El Salvador MDGR 2004 [http://www.pnud.org.sv/documentos/milenio\\_parte\\_III.pdf](http://www.pnud.org.sv/documentos/milenio_parte_III.pdf); <sup>2</sup>UNDP El Salvador Questionnaire; <sup>3</sup>Frameworks and Strategies for Sustainable Development

## GUATEMALA



### MDG7

#### Progress Towards Environmental Sustainability

Trends show some improvements in the use and management of land in Guatemala. Between 1992 and 2000 the proportion of land covered by forests increased from 33% to 35% of total land area. During the same time period, the ratio of protected areas increased from 24% to 29%. It should be noted, however, that despite these achievements, most of these protected areas and forestlands do not have management programmes that regulate and promote sustainable development standards.

According to governmental studies, the proportion of the population with access to safe drinking water has been increasing during the past decade. However, lack of environmental statistical information may undermine this accomplishment. To expand this service, the implementation of water management programmes through private investment towards infrastructure, especially water pipelines in rural areas, will be essential. Moreover, the participation of indigenous people in water programmes will help to ensure the achievement of Target 10 of MDG 7.

Low rates of individual land ownership in Guatemala have confined people to stagnation, especially in rural areas, which has slowed progress to achieving the MDG target to reduce the number of slum dwellers. A national policy towards legalizing individual property rights will improve the prospects for achieving MDG 7 Target 11.

## QUICK FACTS

#### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$10,844,200
<b>Total UNDP and Co-Finance:</b>	\$3,040,536
<b>Total:</b>	\$13,884,763

**Cumulative Total ODS Phased-Out:** 81.0 ODP tonnes

To encourage the achievement of the MDGs, Guatemala will have to promote environmental education, ensure legal framework implementation and allocate economic resources towards environmental policy making efforts. The participation of indigenous communities, NGOs and civil society in the national human development agenda will significantly assist in the achievement of the MDGs.<sup>1</sup>

## SPOTLIGHT



#### Community Water Initiative: Sustainable Water Source Supports Local Livelihoods<sup>2</sup>

The Coyolate community in Guatemala is dependent on water to support their livelihoods, which are mainly based on agriculture and livestock husbandry. Land plots on higher land are particularly reliant on water for irrigation. To ensure a reliable supply of water the community managed to secure funds for a diesel-operated water pump, through its strong Community Association. However, after the pump broke down six months into use, the high costs of repeated repairs became financially unsustainable.

The community found financial support for a new project from UNDP's Community Water Initiative, which provided US\$ 50,143 for a 2-year project beginning in 2003. The Solar Foundation, the University of Rouen and the Guatemalan University of San Carlos provided technical advice and decided with the community to construct a solar-powered groundwater pump. The project was implemented by UNDP, together with the Coyolate Community Association, which is now managing the project. Members of the local community are also being trained to manage the system, ensuring its sustainability.

As a result of this project the community now has a reliable, sustainable and financially viable water source, and costs have been reduced by half. Approximately 560 people – members of 123 households – now have direct access to water, and there has been a decrease in water-related diseases.

The successful implementation of this project was supported by the high level of community cohesion and active participation in the initiative. The community will ensure its long-term sustainability through ongoing water conservation and management measures, for which more funds have been made available.

UNDP Guatemala is working towards improving environmental sustainability to reduce poverty in Guatemala through an array of strategies, which support the Country's Peace Accords, the MDGs and International Environmental Conventions. At the field level, the UNDP in Guatemala is promoting the establishment of landscape scale conservation and sustainable resource use models, promoting renewable energy technologies among the poorest and most marginal sectors of society and establishing public-private partnerships. At the policy level, it is providing assistance to mainstream biodiversity conservation into the national agenda



## PORTFOLIO

**Barbara Pesce-Monteiro, Deputy Resident Representative**

### FSSD\*

UNDP is implementing the GEF-funded National Capacity Self-Assessment (NCSA) for Global Environmental Management in Guatemala, in order to identify and address the country's capacity needs to fulfil its commitments to the three Rio Conventions. In addition, a UNDP is implementing energy and environment project funded by the Royal Netherlands Embassy in Guatemala, entitled, "Rights Based Approach and Social citizenship".

### WATER

UNDP is supporting the effective governance of water resources in Guatemala to increase access to safe drinking water – one of the targets of the MDGs – through a project funded under UNDP's Community Water Initiative, featured in the Spotlight. In addition, UNDP is supporting a programme for Water Observatory and Health, which is also funded by the EU.

### ENERGY

UNDP is supporting increased access to sustainable energy to reduce poverty through the Global Village Energy Partnership in Guatemala. GEF is also providing funds to this project, which provides electrical power in response to identified electricity needs, e.g. schools, clinics, farms. GEF-funding is also supporting a project to develop policies and a legal framework for rural energy services to promote renewable energy. In terms of climate change, a GEF regional project is developing national capacities for adaptation in Central America, Mexico and Cuba. UNDP is also assisting in the preparation of Guatemala's Second National Communication to the UNFCCC, funded by GEF, and establishing national capacities for the Clean Development Mechanism, with funding from UNEP.

### LAND

UNDP is promoting sustainable land management in Guatemala through a GEF-funded land management project "Reversing Land Degradation in Drought Vulnerable Departments and Indigenous Territories".

### BIODIVERSITY

UNDP is ensuring the integration of biodiversity considerations into national planning through the development of the Third National Biodiversity Report, funded by GEF, which is supporting the definition of national priorities and assessment of capacity building needs in biodiversity. GEF is also funding development of a Biotechnology National Framework. At the project level, GEF-funded projects are supporting the conservation and sustainable use of biodiversity, for example, a regional project to mainstream biodiversity conservation into coffee production and sales through private sector sourcing partnerships. Other GEF projects include the regional Mesoamerican Biological Corridor management project, the Motagua Sarstun Regional Conservation Project, a programme to consolidate a system of Municipal Regional Parks in Guatemala's Western Plateau, and the promotion of ecotourism in Guatemala through the strengthening of the national protected areas network.

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The Royal Netherlands Embassy  
European Union  
UNEP

<sup>1</sup>MDGR 2002; <sup>2</sup>UNDP CWI Project Brief: Coyolate, Guatemala: [http://www.undp.org/networks/eedocs/cwi\\_briefs\\_guatemala.doc](http://www.undp.org/networks/eedocs/cwi_briefs_guatemala.doc), UNDP, 2005; <sup>3</sup>Frameworks and Strategies for Sustainable Development



### Progress Towards Environmental Sustainability

Guyana possesses considerable natural resources and vast biodiversity. It is very vulnerable to environmental shocks as production activities depend on the removal of forests, mineral resources, and the protection of land from incursion and erosion from the sea. There is a high risk of environmental degradation in the country.

In the water sector, Guyana's Poverty Reduction Strategy envisages the expansion of the number of wells serving hinterland communities, rehabilitation of major and minor water systems, improving the regulatory framework of the sector, and charging fair prices to encourage the economical use of water resources. It also aims to pursue economies of scale in water production and distribution so as to reduce production costs, mount a public awareness campaign to educate families to conserve and treat water, and implement a comprehensive maintenance plan. These actions will provide quality water to 95% of the population by 2010.

Comprehensive strategies and planning frameworks for the provision of housing and water are being implemented, although in an environment where resources are very limited. In addition, there are programmes such as the Social Impact Amelioration Programme (SIMAP) that support special interventions in areas of chronic poverty. There is a need however, for a comprehensive disaster management framework to be introduced to address the vulnerability of some communities, especially those that are prone to floods and drought.

Support is needed for targeted interventions in areas with chronic levels of poverty, the performance of environmental audits and the implementation of a national protected area system. Training of sufficient technical personnel to provide a critical mass to perform monitoring and evaluation, as well as regulatory activities, is also needed.<sup>1</sup>

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$4,980,500
<b>Total UNDP and Co-Finance:</b>	\$1,150,000
<b>Total:</b>	\$6,130,500

## SPOTLIGHT

### Iwokrama Rainforest: Building Capacity for Improved Environmental Management

As well as the opening up of the interior through the construction of new roads, natural resource-based development activities, such as gold mining, timber extraction, commercial wildlife harvesting, and fishing of interior lakes and rivers are impacting both the environment and the availability of resources of Guyana. This directly affects the lives of people living in the country's interior, many of whom depend upon the environment and natural resources for their livelihoods.

To support such communities, UNDP initiated a project to build capacity to manage local natural resources and the environment in a sustainable way. During the period 1997-2000 UNDP provided support for sustainable socio-economic development through the Ministry of Amerindian Affairs, to 12 indigenous communities (approximately 3,000 people) living on the borders of the Iwokrama Rainforest protected area in the North Rupununi. The project successfully improved communication between the 12 villages by providing solar-powered radios; established a micro-credit centre; constructed activity centres to provide livelihood opportunities for women, such as training in food preparation, accounting, sewing and tailoring, developed a small revolving fund for loans for women; provided and operated a solar-powered water pump; improved clay brick production; and provided photovoltaic lighting for schools and health centres. In addition, training was provided in collaboration with the Ministry of Agriculture in peanut production and harvesting techniques.

Based on this success, in 2004 the Ministry of Amerindian Affairs selected these communities for a pilot project to demonstrate community management plans. UNDP is providing financial and technical resources to the project, which focuses on coordination, strategy and policy development, public awareness, monitoring, consensus building, facilitation of proactive participation at international and regional forums, resources mobilization, enhancing skills in facilitation, conflict resolution, negotiation and participatory methodologies.



UNDP Guyana collaborates to varying degrees with most of the key environmental agencies in the country.<sup>3</sup> Guyana is highly dependent on the import of fossil fuels and has therefore requested UNDP's assistance in its efforts to seek alternative, more sustainable sources of energy. As part of this support, UNDP recently funded the assessment of a hydroelectric power project. Business is not normally responsible for the reduction of poverty, the education of children, combating HIV. The private sector, however, has tremendous ability to help meet the development goals. The key is finding points of overlap between ability and profitability.

**Youssef Mahmoud, Resident Representative**

## PORTFOLIO

### FSDD\*

UNDP is providing assistance to enhance national capacity in environmental policy and planning, focusing on coordination, strategy and policy development, public awareness, monitoring, consensus building, facilitation of proactive participation at international and regional forum, mobilization of resources, enhancing skills in facilitation, conflict resolution, negotiation and participatory methodologies. In addition, to ensure coherence in national planning, UNDP is implementing the GEF-funded National Capacity Self-Assessment (NCSA) process, which aims to identify, confirm and review priority issues for action in the country within and across the thematic areas of Biodiversity, Climate Change and Desertification, and the related international conventions.

### ENERGY

To enable the increased use of renewable energy in Guyana, and thereby reduce GHG emissions, UNDP is providing technical and capacity-building assistance to increase knowledge and skills development for upstream policy and planning on renewable energy. Increased capacity has enabled the identification of alternative funding mechanisms and opportunities for clean energy development. In addition, the GEF-funded Caribbean Renewable Energy regional project aims to remove policy, financial, capacity and awareness barriers to renewable energy use in the Caribbean, to bring about a significant reduction in CO<sub>2</sub> emissions in the region.

### LAND

UNDP is supporting the adoption of sustainable land management practices to reduce poverty in Guyana. In partnership with the private company, Amazon Caribbean Ltd., UNDP is initiating a joint initiative, funded by UNDP resources, to demonstrate public-private partnerships for poverty alleviation in a remote area in Guyana. The major objective is to expand the economic assets of the Amerindians living in remote communities. Activities under the initiative include: training 500 Amerindians in general organic farming skills; providing assistance to prepare the land for organic production; providing seedlings and basic farming equipment; supplying finance to support the transition from harvesting wild palms to cultivation of the palms.



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### PARTNERS

**Some of our Partners working with UNDP and the Government in Guyana**

GTZ

<sup>3</sup>Guyana MDGR 2003 [http://www.undp.org/documents/4513-Guyana\\_MDG\\_Report\\_-\\_Report.pdf](http://www.undp.org/documents/4513-Guyana_MDG_Report_-_Report.pdf); \*UNDP Guyana Document, "GoG/UNDP Capacity Building for the Management of Natural Resources and the Environment Project"; <http://www.undp.org.gy/enenv.html>; \*Frameworks and Strategies for Sustainable Development



### Progress Towards Environmental Sustainability

MDG7

The establishment of the Ministry of Environment in the mid 90's was an important step in Haiti's efforts to protect and manage the environment. The Ministry's implementing capacity, however, remains limited. Its technical and financial resources are too weak for any substantial impact to take place.

Apart from AIDS, the principal causes of mortality in Haiti are environmentally-related diseases, mainly a result of air and water pollution and especially affecting children under the age of five years. Moreover, more than 24% of Haitian territory is prone to serious erosion and degradation. The proportion of forestland in the country was half as much in 2000 as it was in 1987. Approximately 96% of Haiti's population relies on traditional fuels to satisfy their energy needs. Only two parks, La Visite and Macaya, are protected. Coastal zones are not well protected despite the fact that they are under clear and serious threats of degradation.

Environmental degradation in Haiti has affected the socio-economic situation in the country. As a result, erosion and land exploitation have led to a massive rural exodus, which has contributed to the sporadic urban sprawl, recurring floods, and silting, all of which have hampered the reproduction of marine resources.

It is likely that Haiti will attain the MDG target for safe drinking water, provided there are no major economic or environmental disturbances until then. However, while this observation is encouraging, it is important to note that around 1/3 of the Haitian population will still be without access to an adequate source of drinking water in 2015, even if the number of those currently without such access is halved. Moreover, water distribution systems throughout the country are undergoing serious functional problems.

Environmental challenges in Haiti include putting an end to the impunity of environmental 'free riders', to the abuse of natural resources, and to the ignorance of property rights.<sup>1</sup>

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$50,000
<b>Total MPU and Bilateral:</b>	\$264,656
<b>Total:</b>	\$314,656

**Cumulative Total ODS Phased-Out:** 14.0 ODP tonnes

## SPOTLIGHT

### Community-based Water Resources Management<sup>2</sup>

Degraded land and weak governance are major reasons why only half of Haiti's 8 million people have access to clean drinking water. Locating and tapping into clean sources of water is only part of the problem, the other component is managing these water resources. To build capacity in this area, UNDP and the UN Capital Development Fund (UNCDF) are working with four communities in northeastern Haiti to expand access to safe water by establishing viable systems that will allow them to manage their own water needs.

Investment in a sustainable, low maintenance solar-assisted water pump is expected to have a major impact on these communities. For example, the town of Mont Organisé, situated on a small hill, has no water running through it but does have a significant water table below ground. To tap this water and ensure a dependable supply of drinking water, UNDP and UNCDF supported the Government to sink a borehole, and create an 80 cubic metre reservoir and a distribution network of six water distribution points located around the town reservoir. The total cost of the project was approximately US\$ 80,000, of which two-thirds was devoted to the photovoltaic solar-cell panels which generate power to pump the water.

However, the project is not only about hardware, but also about enabling the community to manage its own water. In Mont Organisé, where community disagreements have historically run deep, the project caused something of a first by bringing the community together to set priorities. A committee, made up of representatives of civil society, the administration, and politicians, agreed that clean drinking water was an absolute priority and the committee will be responsible for maintaining the project.

# WATER

UNDP supports the Haitian people in the formulation of a strategic framework to combat poverty through the recommendations outlined in the Poverty Reduction Strategy Paper (PRSP). This framework seeks to provide Haiti with the means to take up the challenge of MDG 7. At the same time, it must enable the direction of development partners: for the mobilisation of resources, assisting in providing access to education and health, intensified fight against HIV/AIDS and improving environmental conditions. In addition, the strategic framework that includes the environmental sustainability dimension will reinforce the credibility of projects presented by Haiti to the international donor community.<sup>3</sup>



## PORTFOLIO

**Adama Guindo, Resident Representative**

### FSSD\*

UNDP is providing institutional strengthening to the Ministry of Environment of Haiti to ensure a solid foundation for the establishment of the Environmental Action Plan. In addition, UNDP is supporting civil society and the private sector to coordinate efforts to increase their participation in environmental protection efforts.

### ENERGY

UNDP is supporting Haiti to increase access to sustainable energy services to reduce poverty and protect the environment. The country has long depended on wood fuel for electricity and heat. Eliminating existing barriers to the development of hydroelectric power is aimed at reducing the long-standing dependence on this traditional fuel source. Micro hydroelectric power is a viable choice to overcoming previous constraints to sustainable energy supplies while relieving the amount of CO<sub>2</sub> emissions.

### CHEMICALS

Haiti's efforts to meet its obligations under global environmental agreements are supported by UNDP under its Montreal Protocol assistance programme. The projects being executed focuses on strengthening capacity to enhance implementation of the refrigeration management plan through a recovery and recycling initiative that targets refrigeration service technicians. The R&R project is accompanied by establishment of a strict monitoring and enforcement system.



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### PARTNERS

**Some of our Partners working with UNDP and the Government in Haiti**

USAID

<sup>1</sup>MDGR 2004 <http://mirror.undp.org/haiti/OMD/>; <sup>2</sup>UNDP Choices, "Haiti: Economic Turnaround in Villages Pegged to Clean Water," March 2003: <http://www.undp.org/dpa/choices/2003/march/haiti.html>; <sup>3</sup><http://mirror.undp.org/haiti/environnement/>; <sup>4</sup>Frameworks and Strategies for Sustainable Development



## HONDURAS



### Progress Towards Environmental Sustainability

MDG7

During recent years, deforestation has been increasing in Honduras, mainly due to population growth, intensive agriculture, and the expansion of cattle settlement. Honduras has programmes to regulate these issues, but lacks sufficient monitoring mechanisms.

Between 1990 and 2001, protected areas increased from 44% to cover 65% of the total land area, thanks to successful government-initiated programmes. Despite these accomplishments, however, coordination and monitoring are still required to integrate national and regional projects to ensure effective management of these protected areas.

If population growth rates continue as expected, government studies foresee the achievement of the MDG target to halve the proportion of the population without safe drinking water facilities by 2005. Despite this promising outlook, rural areas still suffer from a very low number of drinking water facilities. Although water demand is largely met, the absence of a legal framework, insufficient infrastructure and pollution are the major constraints to increase access to safe drinking water.

With a smaller population living in slums, improvements towards achieving MDG target 11 are a result of high rates of individual property rights in urban areas. However, rural communities remain excluded from similar policies.

The development of integrated strategies to coordinate funding mechanisms that promote environmental and property rights policies will help support environmental sustainable development in Honduras. Furthermore, setting and committing to long-term goals

focusing primarily on monitoring and reporting on results are elements necessary for the achievement of MDG 7 for environmental sustainability.<sup>1</sup>

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$42,775,618
<b>Total UNDP and Co-Finance:</b>	\$19,252,049
<b>Total MPU and Bilateral:</b>	\$165,000
<b>Total:</b>	\$63,192,667

**Cumulative Total ODS Phased-Out:** 16.3 ODP tonnes



## SPOTLIGHT



### Empowering Communities to Manage Biodiversity<sup>2</sup>

Honduras is a treasure trove of biodiversity with dry, humid and montane forests, diverse mangroves and coral reefs – the home to a diversity of plants and animals. It is however one of the poorest countries in Latin America and increasing numbers of poor people turn to the countryside to practice subsistence agriculture, while the rich encroach on forests for land on which to raise cattle and establish plantations. To date Honduras has lost 5.7 million hectares of forest, and important biodiversity corridors are threatened by population growth and encroachment.

A component of a larger regional project, the Mesoamerican Biological Corridor, jointly implemented by UNDP and the World Bank and funded by the GEF, was established to enhance the capacities of local authorities and communities to better manage biodiversity and the ecosystem services it provides. The target for 2004 was to provide 646 families in the North Atlantic region with resources for employment generation, and technical assistance to manage local biodiversity in the context of tourism, particularly in the Tawahka and Rio Platana Biospheres. US \$514,117 was allocated for employment generation projects in 10 districts in the Departments of Colon, Atlantida, Cortes and Gracias a Dios, benefiting a total of 2,770 families. Technical assistance was also provided to local groups in project management, as well as in management of financial and natural resources.

The programme has been successful in creating local capacity through involving communities in these efforts, by giving financial resources directly to grassroots community groups, who negotiate and contract the necessary technical assistance and are responsible for monitoring the activities of the project. The programme has also provided support to local women's groups and the participation and representation of women in assemblies and local boards of directors is a pre-requisite for the consideration of any type of support to community groups.



UNDP is working in several aspects in Honduras in order to reduce poverty and reach environmental sustainability in the country. Examples of this work are the implementation of the project “Promoting Integrated Ecosystem and Natural Resource Management in Honduras” which is funded by UNDP/GEF for incorporating and adopting integrated management approaches at the national level. UNDP also supports Honduras in the development of an energy policy on integral and sustainable renewal energy, energy efficiency, and rural energisation and its action plan. The plan of action responds to the PRSs and the MDGs.



**Kim Bolduc, Resident Representative**

## PORTFOLIO

### FSSD\*

UNDP is supporting Honduras to raise awareness of the links between poverty and the environment, and incorporate this into national planning, through the “Sustainable Human Development for Poverty Reduction” project. The project has worked to generate processes of reflection and consensus, particularly through consecutive national human development reports. It also aims to strengthen the technical capacities of the Government and civil society through knowledge generation and dissemination under the paradigm of SHD for Poverty Reduction.

### ENERGY

UNDP is assisting the Government to increase access to sustainable energy and reduce GHG emissions, thereby reducing poverty and protecting the environment. For example, the GEF-funded industrial and commercial sector energy efficiency project is designed to remove barriers to energy efficient equipment and practices, while the Renewable Energy project is working to accelerate renewable energy investments through CABEL, reduce the CO<sub>2</sub> emissions of the energy sector, and contribute to rural economic development. With GEF funding, UNDP is also supporting the country to fulfil its commitments to the UNFCCC through assistance to the preparation of the Second National Communication to the Convention. Additional funding for energy projects in Honduras is provided by CIDA, CABEL, UNIDO, UNEP, and UNDP’s Sustainable Energy Thematic Trust Fund.

### LAND

The “Honduras Land Administration Programme” works to formalize property rights for the vast majority of Hondurans. This programme, implemented by UNDP with funding from the World Bank, will facilitate access to land by the poor, reduce transaction costs, and encourage the emergence of dynamic land-based asset markets. In addition, with funding from the Swedish Government, UNDP is supporting Honduras to legalize land possession, and eventually obtain property titles for 1,800 families. As a result of owning property titles, these families will have access to an improvement programme or the construction of a house through credits.

### BIODIVERSITY

UNDP is supporting the conservation and sustainable use of biodiversity in Honduras through GEF-funded projects such as, the “Integrated Ecosystem and Natural Resources Management” programme, which is promoting environmental benefits through the integration of ecosystem management principles into rural development projects. Another GEF-funded project is strengthening the capacity of the National Programme for Local Development, which incorporates and adopts integrated management approaches, while the GEF “Biodiversity in Priority Areas Project” is supporting the ecosystem integrity of the Honduran section of the Mesoamerican Biological Corridor, through better conservation of biodiversity in core areas and sustainable use of biodiversity in the corridor buffer zones

### CHEMICALS

UNDP is supporting Honduras’ efforts towards sound management of chemicals through implementation of a technical assistance programme in the refrigeration sector under the Montreal Protocol, and an enabling activity initiative for development of a National Implementation Plan for the Stockholm Convention on POPs. This programme, funded by both the Multilateral Fund of the Montreal Protocol and the GEF, contributes significantly to Honduras’ action to fulfil its obligations under the global chemicals management regime.

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### PARTNERS

#### Some of our Partners working with UNDP and the Government in Honduras

CIDA CABEL  
UNIDO  
UNEP  
Government of Sweden  
World Bank



### Progress Towards Environmental Sustainability

MDG7

Jamaica has made progress towards ensuring environmental sustainability in several areas. There is clear evidence of the integration of sustainable development principles in national policies and programmes and of increasing efforts to raise national consciousness of these principles, as well as efforts to redress existing threats to the environment. Despite urban-rural disparities, access to safe drinking water has improved considerably within the last decade and major initiatives have been taken to address living standards for those living in substandard conditions in squatter settlements and inner-city communities. In general, progress towards meeting MDG 7 is assessed as being "on track".

Deforestation has been occurring in Jamaica at an annual rate of 0.1%, causing forest cover to decrease from 35% in 1990 to 30% in 2000. This loss in forest cover is largely due to bauxite mining. Protected areas, some of which are managed by NGOs, amount to 13.1% of Jamaica's total land surface area. In general, air pollution resulting from emissions of carbon dioxide is not a significant environmental issue because of limited industrial development. One area of concern is that measurements of air quality are not undertaken regularly. In areas where air quality is impaired, it is usually a localized problem.

The consumption of CFCs has in general been showing a downward trend between 1990-2000. This reduction is due to change in technology for refrigerators and air conditioning equipment, as well as development of a Refrigerant Management Plan and development of a Halon Bank Management Plan.

While Jamaica is on track to achieving MDG 7, some challenges remain. The rural areas continue to be marginalized as their residents enjoy less access to services than those in urban areas. The management of biodiversity resources has been difficult because large sections of the Jamaican islands are privately owned. Inappropriate land use continues to pose a major problem for hazard mitigation. Constraints to forest management include low levels of public awareness and compliance; lack of political commitment; inadequate human resources; and lack of coordination in institutional responsibilities.<sup>1</sup>

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$1,322,145
<b>Total UNDP and Co-Finance:</b>	\$992,000
<b>Total MPU and Bilateral:</b>	\$180,000
<b>Total:</b>	\$2,494,145

**Cumulative Total ODS Phased-Out:** 100.6 ODP tonnes

## SPOTLIGHT

### Reducing Bottlenecks and Creating Synergies through the NCSA Process<sup>2</sup>

Jamaica has an exceptionally broad diversity of topography, geology and climate, and since independence in 1962, the country's natural resource base has been vital to its economic development. The Jamaican economy has gradually evolved from one primarily dependent on agricultural exports to a reliance on tourism. Environmental initiatives are key to sustaining this foreign-exchange earner, yet pre-occupation with security matters and a dearth of other social sector services has limited funding prioritising the environment.

With GEF support of US\$ 225,000 and implemented by UNDP, Jamaica seeks to create greater synergies between existing commitments under the UN Framework Convention on Climate Change, the Convention to Combat Desertification, and the Convention on Biological Diversity. Jamaica's National Capacity Self-Assessment (NCSA) framework officially commenced in March 2004 and will be conducted over two years. The first year of the project included stocktaking, thematic assessments, the evaluation of crosscutting issues and the development of a National Strategy and Action Plan, while the second year will involve monitoring the implementation of the Action Plan. Jamaica will examine the need for and benefits to be derived from a coordinated and cross-sectional approach to environmental activities in order to meet its global commitments. The NCSA will also provide valuable strategic directions for the consolidation of environmental planning and management activities within the newly formed National Environment and Planning Agency.

Ultimately the NCSA process identifies the critical bottlenecks and linkages within the environmental sector. The findings and action plan resulting from the NCSA process will help to direct sustainable development planning by strengthening dialogue, information exchange and cooperation among governmental, academic and private sectors in Jamaica.

UNDP has been supporting Jamaica in the area of environment and disaster management by not only assisting the Government to meet its obligations to the conventions, but also by supporting initiatives such as energy dialogues to engage the country in discussing alternative energy and efficient energy use. UNDP's office in Jamaica is also responsible for leading the GEF-funded regional Integrated Watershed and Coastal Area Management (IWCAM) project. UNDP is also leading the efforts in the field of disaster management through the implementation of well-designed risk management strategies and post disaster response and coordination evidenced in our response to the disasters in 2004.



## PORTFOLIO

**Juan Carlos Espinola, Resident Representative**

### FSSD\*

The Jamaica Sustainable Development Network Programme (JSDNP) promotes the collation, dissemination, and use of information relevant to sustainable development, using various forms of information and communication technology. The community Cybercentres established under the programme are a major component of its community outreach mechanism. In addition, they function as community information nodes where information from a range of sectors and partners in the community is made available on web sites. The JSDNP is funded by Microsoft, UNDP resources, and the Government of Jamaica. The country's NCSA is featured in the Spotlight section.

### WATER

With funding from GEF, UNDP assists countries with shared waters to improve their watershed and coastal zone management practices in support of sustainable development. Jamaica is a leader in the regional Integrated Watershed and Coastal Area Management programme in the 13 Small Island Developing States of the Caribbean. Areas of priority concern addressed by this GEF regional programme include: coastal area management and biodiversity; tourism development; protection of water supplies; land-based sources of pollution; climate change. Activities include: demonstrations of marine pollution reduction and waste management, land use, soil degradation and watershed management.

### ENERGY

UNDP is promoting sustainable energy and reduction of GHG emissions in Jamaica through the "Energy Dialogues" project, which facilitates discussions among stakeholders on conservation, oil dependence, alternative energy, poverty and health, and individual energy use. In addition, the "Environmental Management in Hospitals and Schools" project is implementing efficiency and conservation measures at two major public hospitals, as well as providing training in basic Environmental Management Systems. Both projects are funded by UNDP resources. With GEF funding, UNDP is also supporting both Jamaica and the Bahamas to fulfil their commitments to the UNFCCC by supporting the preparation of their National Communications to the UNFCCC.

### CHEMICALS

In Jamaica, the concrete measures taken by the Government to achieve sound management of chemicals receive UNDP support through various interventions. In the area of POPs, the enabling activity being implemented will result in the NIP, which in turn will provide the basis for further concerted actions to ensure compliance with the Stockholm Convention. In addition, assistance is also being provided towards ODS phase-out initiatives in the country through the implementation of a terminal phase-out management plan for CFCs through a combination of training, technical and policy/management support. In the foam sector, the technical assistance umbrella project aims to phase-out the use of ODS solvents and the elimination of CFC-12 as a sterilant in private and public hospitals. All projects are executed nationally.



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### PARTNERS

**Some of our Partners working with UNDP and the Government in Jamaica**

Microsoft



### Progress Towards Environmental Sustainability

Mexico recognizes the complex linkages between environmental and economic development and has developed multidisciplinary strategies accordingly. It has therefore flagged the need for reliable information and adequate allocation of economic resources to promote environmentally sustainable development policies.

In 2001, the Mexican government declared water bodies and forests as important for national security. The inclusion of these natural resources in the country's legal framework led to the establishment of funding mechanisms and the implementation of integrated programmes. Despite these efforts, the land area covered by forests decreased significantly in the last decade, as a result of forest fires and intensive agriculture. Subsequent reinforcement of the legal framework resulted in some improvements in the environmental arena. In 1990, 76 national parks and biodiversity reserves accounted for 2.9% of total land surface area. The implementation of regional programmes has increased the proportion of protected areas to 9% in 2003. Poor management of low budget programmes has been a major constraint to the expansion and monitoring of natural reserves.

Intensive demographic growth has posed a challenge to local governments' capacity to strengthen infrastructure and to effectively deliver services. Moreover, increased rural migration to urban areas has led to an increase in the number of slum dwellers. By 2002, more than half of the population living under the poverty line – approximately 27 million, lived in urban areas. If demographic tendencies continue in the same manner, 85% of population growth will take place in urban cities in the next 25 years.

Major challenges to achieving MDG 7 for environmental sustainability in Mexico include: ignorance of the economic and social costs of population growth; uneven geographic distribution of the population; poorly planned urbanization and its harmful impacts on air, water, and soil; and the degradation of natural resources.<sup>1</sup>

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$39,075,660
<b>Total UNDP and Co-Finance:</b>	\$11,305,205
<b>Total MPU and Bilateral:</b>	\$3,318,295
<b>Total:</b>	\$53,699,160

**Cumulative Total ODS Phased-Out:** 2,879.1 ODP tonnes

## SPOTLIGHT

### Organic Coffee Café, Preserving Biodiversity and Reducing Poverty<sup>2</sup>

The struggle for equality, pluralism, autonomy and free participation in the coffee grinds business in Mexico began in the late 1970s. What started out as limited cooperation and a fight for proper land ownership in Las Margaritas, Chiapas has now evolved into a well-known, well-run chain of coffee shops in Mexico City.

Café de la Selva is a chain of coffee shops selling organic coffee grown by indigenous communities in Chiapas. The chain is the result of collaboration between a smallfarmers' organization, the Union de Ejidos de la Selva, and the Vinculo y Desarrollo civil association. Together these organizations have developed five successful coffee shops in Mexico City and have worked to establish the chain's reputation among urban consumers. The origin of the coffee itself is what makes these cafés so special. By controlling the entire vertical chain of coffee production, the Union de Ejidos de la Selva is able to improve indigenous farmer income and self-sufficiency. With over 20 years of experience, the Union now collaborates with 1,250 families in 42 communities to ensure the adoption of better soil management and environmental practices. By using certified organic techniques, farmers are able to control erosion, limit pollution, create a healthier environment for other species, and produce coffee that meets the demands of the most discriminating consumers.

In recognition of their outstanding achievement, UNDP's Equator Initiative awarded La Selva Café a US\$ 30,000 grant in 2002. La Selva Café used the grant to form, together with their local partners, a new corporate entity – La Selva International S.C. – to promote the commercial expansion of the chain nationally and internationally, and to develop new operations, outlets, and café locations. La Selva coffee is now sold in Switzerland, Austria, Germany, the UK, Denmark and the United States.



UNDP and the Mexican government are working together on two fundamental objectives. The first objective is to support the design, implementation, and evaluation of environmental programmes through the active participation of civil service organizations. Secondly, UNDP is helping Mexico fulfil its environmental commitments at the international level like the ones arranged in international conventions and their respective protocols. These are being mobilized and implemented with international funds, like the cases of the Montreal Protocol, GEF, and Capacity 21.<sup>3</sup>



## PORTFOLIO

Thierry Lemaesquier, Resident Representative

### FSSD\*

UNDP is supporting Mexico's "Green Plan" project, funded by GEF, which will enable the Government to develop comprehensive strategies, action plans, and frameworks to facilitate the launch of a new orientation towards sustainable human development. In addition, UNDP's public spaces project is enabling the participation of civil society in the implementation of environmental policies, management, and conservation of natural resources, with funding from the Government.

### ENERGY

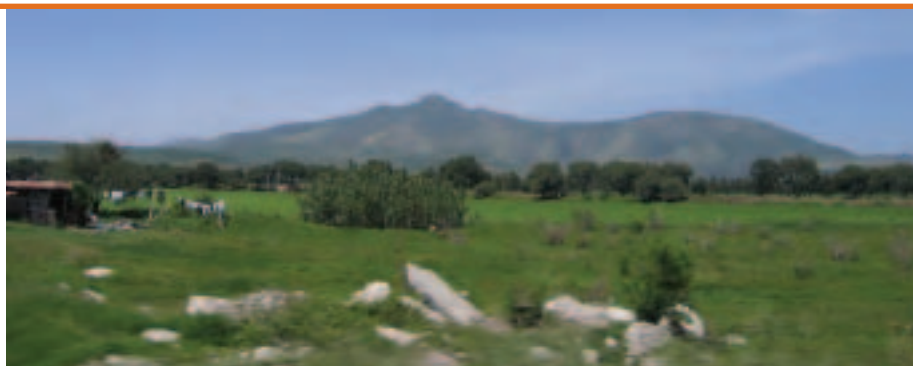
To increase access to sustainable energy and reduce emissions of GHGs in Mexico, UNDP is implementing a GEF-funded wind energy project, which will launch a comprehensive and systematic effort to reduce identified barriers to wind energy development. Barriers include regulatory frameworks of the electricity sector, and lack of wind energy resources assessments, technology, and information. Another GEF-funded project aims to foster the development, manufacture, and large-scale commercialization of hydrogen-fuel cell buses in Mexico.

### BIODIVERSITY

UNDP is supporting the consolidation of Mexico's capacity for the implementation of the Cartagena Protocol on Biosafety, with funding from GEF. In addition, UNDP is promoting the conservation and sustainable use of biodiversity through projects such as the "Natural Protected Areas" project, funded by the government, and the GEF-funded "Sierra Gorda Biosphere Reserve" project, which promotes biodiversity conservation through the division of responsibilities between NGOs and the State. Another GEF-funded project protects biodiversity and vital ecosystem functions within Mexico's globally significant eco-regions, by establishing a framework and local capacities to manage biodiversity-friendly land/resource use.

### CHEMICALS

UNDP has supported Mexico through implementation of a portfolio with over 50 projects that have successfully contributed to strengthening Mexico's compliance efforts under the Montreal Protocol. Currently UNDP's assistance programme focuses on the sectors of methyl bromide, foam and halons. Through the implementation of the methyl bromide initiative, seven alternatives to methyl bromide use in the post-harvest sector are being demonstrated, and their technical and economic feasibility, as well as their environmental effects, is being evaluated. Other sectors' interventions include a foam sector phase-out plan and establishment of a national halon management and banking operation that seeks to decrease dependence on imports and provide locally-recycled halons to be used for servicing existing systems, as well as future critical use applications.



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<sup>1</sup>MDGR 2005 <http://www.un.org.mx/ODM/Indexodm.html>; <sup>2</sup>Roe, D., "The Millennium Development Goals and Conservation: Managing Nature's Wealth for Society's Health," IEED: London, 2005; <http://www.meetingthemdgs.org/pubs.html> and UNDP Equator Prize 2002 Finalists: [http://www.undp.org/equatorinitiative/secondary/equator\\_prize2002.htm](http://www.undp.org/equatorinitiative/secondary/equator_prize2002.htm); Café de la Selva website: <http://www.laselvacafe.com.mx/indexe.html>; <sup>3</sup><http://www.undp.org.mx/MedioAmbiente/index.cfm>; \*Frameworks and Strategies for Sustainable Development

## NICARAGUA



### Progress Towards Environmental Sustainability

The Nicaraguan government has launched programmes that aim to integrate sustainable development principles into the legal framework, in order to have impact on the population's everyday life. Despite these efforts, most of the policies and strategies still need to be aligned and integrated to improve environmental sustainability.

Intensive agriculture, cattle settlement, forest fires and wood extraction have significantly contributed to deforestation. Moreover, agrochemical pollution and salinization of soils have led to the reduction in water availability.

In 1990, only 45.8% of the total population had access to safe drinking water, whereas in 2001, this percentage increased to 70.5%. However, around 54% of the population living in rural areas had no access to water. Allocating economic resources towards water pipe infrastructure is essential in order to achieve MDG target 10 for access to safe drinking water in Nicaragua.

Civil society, NGOs and the private sector have been working together with the government to ensure their interests are addressed in the national development programme. Limited institutional capacity and lack of economic resources resulted primarily from a weak legal framework. Nicaragua has therefore developed a legal framework focused on preserving and improving the environment by ensuring strong linkages between economic development and natural resources management.

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$15,815,115
<b>Total UNDP and Co-Finance:</b>	\$519,167
<b>Total MPU and Bilateral:</b>	\$130,000
<b>Total:</b>	\$16,464,282

Lack of mechanisms ensuring effective programme implementation has led to more uncontrolled natural resource degradation. Important regional and national programmes have been launched to stop this and to promote environmental sustainable development in Nicaragua. Despite these efforts, the current economic crisis, the high rates of population living under the poverty line and political instability have all contributed to stagnation in environmental sustainability in the country.<sup>1</sup>

## SPOTLIGHT

### National Energy Dialogue Produces Inclusive Policy<sup>2</sup>

Heavily dependent on oil as its primary fuel source, energy issues are always critical in Nicaragua. Investment in renewable energy is minimal, and preliminary studies are needed to foster investment and dialogue among the interested parties. Nicaragua has also experienced an increase in natural resource degradation, and many poor rural communities lack access to energy services. Furthermore, limited institutional capacity has restricted the involvement of rural communities and the private sector in developing environmental projects that contribute to poverty reduction.

UNDP's Energy Thematic Trust Fund granted US\$ 140,000 to a project to promote a national "Energy Dialogue". During the period 2003-2004, a multi-level council was created to discuss and develop a national energy plan. Government officers, private sector entrepreneurs, civil society and indigenous groups worked together at roundtable discussions to develop a National Energy Plan and promote investment mechanisms in the renewable energy sector. The project ensured that all districts were included in the development of the energy sector, as well as encouraging effective financing mechanisms for environmental projects.

The project supported the studies needed to jump-start the dialogue process in Nicaragua, and discussed studies on environmental and fiscal barriers to renewable energy. The dialogue also supported various workshops on how renewable energy projects can take advantage of the CDM to generate revenue through the sale of Certified Emission Reductions, and how to increase carbon sequestration rates. In addition, the project promoted dialogue between the Energy and Environment Commissions.

Overall, the project successfully established the necessary foundation to allow different groups in the economic development agenda to voice their interests, and to promote investment towards renewable energy projects. The collaboration between different entities resulted in a detailed and inclusive National Energy Plan that will positively impact the environment, while promoting investment mechanisms towards renewable energy resources.

In Nicaragua, environmental deterioration is intimately linked to poverty. In addition, the preservation of natural resources is the fundamental basis for the country's economy and the well-being of current and future generations. The sustainable management of resources does not have repercussions just on Nicaraguan society, but also on regional and global processes. UNDP helps Nicaragua to develop its capacity to face environmental challenges at national and local level. The office helps find and share the best practices, advice, and designs that help the poor create a sustainable life through its programmes on sustainable land management, hydro electrical plants and conservation of wildlife.<sup>3</sup>



**Jorge L. Chediek, Resident Representative**

## PORTFOLIO

### FSSD\*

UNDP is supporting the Government to effectively mainstream environmental issues into national development plans and strategies. For example, with funds from GEF, UNDP is supporting the National Capacity Self Assessment (NCSA) process for Global Environmental Management, which will identify the national capacity needs for Nicaragua to meet its commitments to the Conventions on Biodiversity, Climate Change and Desertification, and will produce an action plan to ensure coherence and integration of sustainable development and environmental planning and activities. In addition, UNDP, NET, IGP, and IFAD are funding a National Clean Development Office in Nicaragua.

### WATER

To improve the environmental conditions on Nicaragua's Little Corn Island, UNDP is implementing a Solid Waste Management project, with funding provided by GEF.

### ENERGY

To increase access to sustainable energy services and reduce GHG emissions in Nicaragua, UNDP is implementing a project to develop Small Hydroelectric Plants. Funding for this project is provided by GEF, COSUDE, and UNDP resources. In terms of climate change, to enable the country to fulfil its commitments to the UN Framework Convention on Climate Change (UNFCCC), UNDP is supporting the preparation of Nicaragua's Second National Communication to UNFCCC, with funding from GEF.

### LAND

UNDP is supporting Sustainable Land Management in Nicaragua by developing a programme to address issues in the country's drought-prone degraded areas. The objective of the project is to contribute to increasing ecosystem integrity, stability, functions and services, through the promotion and mainstreaming of sustainable land management policies and practices using a cross-sectoral approach, thus also contributing to people's livelihoods and economic well-being. The project aims to create the enabling governance arrangements, the financial conditions and the knowledge base for sustainable land management practices to take root and be widely adopted in rural areas of dryland Nicaragua.

### BIODIVERSITY

UNDP is supporting the conservation and sustainable use of biodiversity in Nicaragua through a number of projects. For example, UNDP is assisting in improvements to the infrastructure of the Chacocente Wildlife Refuge, using funding from UNDP resources. In addition, with financial support from GEF, UNDP is helping to build public-private partnerships to conserve the marine and dry forest ecosystem of the South Pacific of Nicaragua, while with funding from GEF and GTZ, UNDP is managing the Mesoamerican Biological Corridor.

### CHEMICALS

With the support of MLF funding, UNDP is assisting Nicaragua through implementation of its refrigerant management plan update. This project involves the establishment of an incentive programme for the promotion of good management practices in refrigeration. The Government is also working with UNDP to develop a transition strategy away from ODS use in the aerosol inhalant drug product sector. Within the context of the Stockholm Convention, UNDP is supporting Nicaragua's efforts to implement an enabling activity that will result in development of the NIP, an initiative that will establish the framework for further activities targeting POPs in Nicaragua.

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<sup>1</sup>MDGR 2003 [http://www.undg.org/documents/4413-Nicaragua\\_MDG\\_Report.pdf](http://www.undg.org/documents/4413-Nicaragua_MDG_Report.pdf); <sup>2</sup>UNDP Nicaragua, "Annual Project Report: NIC/03/M13 – DIALOGO ENERGIA"; <sup>3</sup>[http://www.undg.org/documents/1593-Nicaragua\\_UNDAF\\_-\\_Nicaragua.pdf](http://www.undg.org/documents/1593-Nicaragua_UNDAF_-_Nicaragua.pdf) and <http://www.undp.org.ni/ambiente.php>; \*Frameworks and Strategies for Sustainable Development



### Progress Towards Environmental Sustainability

MDG7

Panama has gathered support from public and private sectors in order to progress towards environmental sustainability. It has done so by using its strategic geographical location to develop effective environmental programmes that help to achieve MDG 7.

In 1992, forests covered 44.5% of Panama's total land area. However, this proportion decreased to 40.4% in 1998. Despite all the international and regional agreements aiming to remedy this, Panama still suffers from high rates of deforestation, which have diminished natural resources and threatened biodiversity.

Governmental efforts have lessened the problem of deforestation, resulting in 29.7% of the total land area to be under protected area legislation. Economic resources are required to manage these national parks and biodiversity reserves, as well as to improve environmental education about the importance of these areas.

Most subsistence in rural communities is based on agriculture and livestock. Panama sees it as essential to adapt its economic and environmental strategies to agricultural production, in order to achieve economic growth and minimize its harmful effects on the environment.

While the proportion of the population with access to safe drinking water increased from 78.7% in 1990 to 88.2% in 2000, some rural areas and indigenous communities still suffer from lack of access to safe drinking water. To achieve this MDG target, it is necessary to allocate sufficient economic resources towards improved water pipeline infrastructure.

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$3,037,700
<b>Total UNDP and Co-Finance:</b>	\$2,431,032
<b>Total MPU and Bilateral:</b>	\$265,152
<b>Total:</b>	\$5,733,884

**Cumulative Total ODS Phased-Out:** 59.2 ODP tonnes

In 2000, some authoritative studies revealed that 20% of the total population lived in slums. A decrease in this number in the last decade is intrinsically related to the high rates of individual property rights, from which more than half of the total population benefited. Despite these improvements, many indigenous communities are still mired in poor living conditions.

Efforts needed to achieve MDG 7 in Panama include: empowering indigenous communities; allocating economic resources to rural areas through well-planned programmes; and enforcing legal frameworks for environmental sustainability.<sup>1</sup>

## SPOTLIGHT

### Ecotourism: Promoting Economic Development and Conservation<sup>2</sup>

Panama's geographic location, with both Pacific and Atlantic coasts, and its year-round warm climate has created a fertile environment for a vast array of biodiversity. However, insufficient funds, weak project planning and lack of private sector involvement has mitigated against any link between economic development and biodiversity conservation, despite governmental efforts.

The Sustainable Tourism Development Master Plan of the Las Perlas Archipelago and Isla del Rey was Panama's first ecotourism plan incorporating environmental considerations, and designed and implemented in collaboration between UNDP, the Government, and the private sector. With a total budget of US\$ 325,000, a new legal framework for land management is being introduced which will prohibit non-environmentally sustainable tourism projects. The new regulation will also ensure the installation of a waste management plant to generate renewable energy for the hotels and bungalows, thus minimising the impacts on the environment. In the preliminary stages, the joint project will help promote ecotourism in low-biodiversity areas, while securing conservation of tropical forest habitats, coral reefs and endogenous species. Local communities are a fundamental part in the development of this project as they provide ancestral knowledge of flora and fauna and the coastal and marine habitats.

A major accomplishment of the project has been the high response of foreign investment towards the development of Las Perlas Archipelago, as well as the structured planning provided by the Government. Las Perlas now has the necessary foundations to involve the local communities and promote biodiversity conservation, while achieving economic growth. The success of this joint-funded project illustrates that an interdisciplinary approach, involving public and private sector information sharing, experiences and human resources can successfully achieve development and conservation.



Along with the Government, environmental organizations, as well as international organizations, UNDP Panama works actively in the areas of the climate change, the conservation and sustainable use of the biodiversity, and access to new forms of renewable energy.<sup>3</sup> Also, Panama receives aid from UNDP for the development of better environmental management practices. UNDP, in partnership with UNEP, will continue to work with Panama to help the country evaluate its progresses and also to work on overcoming the many environmental challenges that remain.



**Roberto Gálvez, Resident Representative**

## PORTFOLIO

### FSSD\*

UNDP is supporting the strengthening of environmental policies and managerial programmes in Panama through a government-funded project which includes the active participation of Panamanian NGOs.

### WATER

UNDP is supporting the Regional Inter Ocean Authority through the “Coastal Zone Development Project,” which aims increase the regional development of the coastal zones by providing researching, planning and encouraging the participation of the private sector. This project is funded by the Government of Panama and the Inter-American Development Bank.

### ENERGY

UNDP is assisting the government in integrating climate change adaptation strategies into national sustainable development, through the development of a National Adaptation Policy Framework for preparing adaptation strategies, policies, and measures. Another GEF-funded project is creating and improving permanent national capacities to enable Panama to meet its reporting obligations under the UNFCCC, leading to the preparation of Panama’s Second National Communication to the CoP. To improve access to sustainable energy and reduce GHG emissions, UNDP is working on a project, again funded by GEF, to remove barriers to commercial-scale, grid-connected wind power energy production in Panama, thereby reducing the need for fossil fuels and associated GHG emissions.

### BIODIVERSITY

To promote biodiversity conservation, UNDP is supporting a Government-funded environmental education programme, which encourages a cultural switch towards biodiversity conservation and sustainable use of natural resources among students. UNDP is also supporting an ecotourism project (see Spotlight), while the “Central American Markets for Biodiversity” project is supporting the mainstreaming of biodiversity conservation and sustainable use within small, micro- and medium-sized enterprise development and financing in Central America. Funding is from the World Bank and the Government, which is also funding the development of a conservation and management strategy in the Darien region, based on the application of scientific knowledge and the identification of options for biodiversity management, in cooperation with local communities.

### CHEMICALS

UNDP has provided continuous support towards Panama’s compliance with the Montreal Protocol since 1993. Most recently, the implementation of the national phase-out plan includes an incentive programme for retrofitting fishing boat refrigeration systems; a technical assistance programme for the prevention of illegal CFC trade; and, a technical assistance programme for training refrigeration and air conditioning technicians. Such an approach has allowed stakeholders, both private and public to draw on a range of expertise available at the global level in order to maintain compliance with the Montreal Protocol.

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### PARTNERS

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<sup>1</sup>MDGR 2003 [http://www.undg.org/documents/2763-Panama\\_MDG\\_Report\\_-\\_Panama\\_MDGR.pdf](http://www.undg.org/documents/2763-Panama_MDG_Report_-_Panama_MDGR.pdf); <sup>2</sup>UNDP Nicaragua Questionnaire 2005; INCAE, “Diagnóstico del Sector Turismo en Panamá, 2001: <http://www.incae.ac.cr/ES/clacds/investigacion/pdf/cen663.pdf>; <sup>3</sup>[http://www.undp.org.pa/pnudpanama/portal/lang\\_\\_es/tabID\\_\\_3345/DesktopDefault.aspx](http://www.undp.org.pa/pnudpanama/portal/lang__es/tabID__3345/DesktopDefault.aspx); \*Frameworks and Strategies for Sustainable Development

## PARAGUAY



### Progress Towards Environmental Sustainability

Paraguay recognizes the importance of mainstreaming environment into its development policies in order for its development programmes to have positive impact on the environment. Integration of environmentally sustainable development policies into the national legal framework, as well as the establishment of the Environment Secretariat have been positive steps towards achieving MDG 7 in Paraguay.

During the last decade, Paraguay's forests have been decreasing as a result of the population's heavy reliance on the use of wood. By 1997, only 7% of the total land area was covered by forests. Intensive agriculture and rapid deforestation are major constraints to environmental sustainability, resulting in soil erosion, sedimentation and the degradation of natural resources.

Protected areas, which include national parks and biodiversity reserves, accounted for 5% of total land surface area in 2002. Half of these protected areas are managed by the government and are in need of more public investment to increase environmental management programmes for these parks.

The recently created Environment Secretariat aims to develop and implement environmental policies both nationally and regionally. However, a low budget and weak legal framework will limit the impact of these policies.

From 1992 to 2002, the proportion of the population with access to safe drinking water increased from 25% to 53%. Seen through a regional lens, 80% of urban residents and only 21% of rural residents had access to safe drinking water. This vast inequality poses the greatest challenge to the achievement of MDG target 10. Financial resources are needed in order to fund improved infrastructure for water facilities in order to increase these low coverage rates.

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$12,250,550
<b>Total UNDP and Co-Finance:</b>	\$40,478,148
<b>Total MPU and Bilateral:</b>	\$725,537
<b>Total:</b>	\$53,454,235

**Cumulative Total ODS Phased-Out:** 90.0 ODP tonnes

Paraguay's new environmental programmes will require fiscal incentives or compensation mechanisms to promote and increase management of the country's natural resources. Adequate allocation of financial resources towards environmental programmes will help support the achievement of the MDG 7 targets for environmental sustainability in Paraguay.<sup>1</sup>

## SPOTLIGHT

### Developing a Clear Vision for Environmental Conservation<sup>2</sup>

Deforestation and the destruction of native forests are among the most pressing environmental concerns in Paraguay. Forests cover 58% of the land and represent a significant economic potential, therefore initiatives are required to improve environmental management practices in the country, particularly in the forestry sector. A special emphasis is to be placed on greater public participation in the sustainable management of resources and on the transfer of technologies and models that can contribute to sustainable economic development.

To provide the required framework, and enable Paraguay to fulfil its commitments to the Convention on Biological Diversity (CBD), UNDP supported Paraguay's Secretariat of the Environment (SEAM) to develop a National Biodiversity Strategy and Action Plan (NBSAP) and National Report to the CBD. This process, initiated in 2002, was funded by a US\$ 137,000 grant from GEF. The NBSAP lays out a strategy for the long-term protection and sustainable use of Paraguay's biodiversity, and includes an action plan to ensure its implementation.

The project's major achievements include the submission of the First National Report to the CBD in 2003, the creation of the NBSAP steering committee, made up of 19 representatives from government organizations, NGOs, and wildlife users, and the preparation of the NBSAP document, through a highly participative process at the national level. It is noteworthy that there are no precedents for these kinds of endeavors in Paraguay under the SEAM, which was created in 2000.

The project has also successfully contributed to promoting understanding of biodiversity in Paraguay, with a comprehensive awareness campaign involving the mass distribution of brochures and posters highlighting Paraguay's biodiversity, participation in radio programmes and workshops throughout the country, lectures to students and, finally, community radio programmes that further promote Paraguay's appreciation of pristine ecosystems.

Environmental sustainability is based on strengthening local government's capacity, and development of projects executed by Community Based Organisations. Local institutions receive training for the creation or strengthening of Sustainable Development Secretariat in municipalities. UNDP is also promoting the creation of a capacity building programme of local management committees in buffer areas of four most important protected areas in order to reduce pressure on biodiversity resources. UNDP promoted together with IDB the recently approved National Environmental Policy, considered as key output for framing of sustainable development programmes as well as allocation of resources for conservation.



**Henry Jackelen, Resident Representative**

## PORTFOLIO

### FSSD\*

In Paraguay, UNDP is supporting the integration of environmental considerations into national planning and building capacity in the management of natural resources. For example, UNDP's Natural Resources Management project is working to end the current unsustainable use of natural resources in the departments of Alto Parana and Itapua. With funding from the Government and the World Bank, the project promotes sustainable rural development and improved standard of living. The community development "PRODECO" project, also funded by the Government and the World Bank, promotes decentralized and participative development as a means to improve the quality of life and social inclusion of poor rural and semi-urban communities in three border departments.

### ENERGY

UNDP is supporting Paraguay to fulfil its commitments to the UN Framework Convention on Climate Change (UNFCCC) through a GEF-funded project to support the preparation of Paraguay's First National Report to the UNFCCC, following a highly participative process. The project is also working to create awareness on climate change, to provide assistance on strategy formulation, and to strengthen national institutions involved in the development and implementation of response measures to mitigate climatic change and its impacts.

### LAND

UNDP is supporting sustainable land management in Uruguay through the "Programme for Diversification of Family Agriculture", funded by the Government. In the short-term, the programme focuses on reducing the extreme poverty of Uruguay's rural population by identifying mechanisms to reactivate the rural economy, while in the medium- to long-term, it seeks to promote the economic and social rehabilitation of priority areas through the diversification of farming and forestry.

### BIODIVERSITY

UNDP is ensuring the integration of biodiversity conservation and sustainable use through the development of Uruguay's National Biodiversity Strategy and Action Plan, funded by GEF. In addition, a support programme funded by the Government is strengthening the national Secretariat of the Environment, through the formulation of a strategic vision for environmental management practices in Uruguay. UNDP is also supporting the "Paraguayan Wildlands Protection Initiative" project, which provides assistance on the management and conservation of the country's globally important protected areas and is in its second phase; funding is provided by GEF.

### CHEMICALS

UNDP's presence in Paraguay's chemicals development programme has contributed significantly to committed and sustainable efforts of the Government under the Montreal Protocol for over 8 years, with a significant portfolio of projects in the refrigeration, foams and solvents sectors. Two projects are currently being implemented in the refrigeration sector, where assistance is made available towards RMP implementation and commercial refrigeration equipment replacement.

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### MDG7

#### Progress Towards Environmental Sustainability

Peru has many forestlands and is rich in biodiversity. In 2000, different types of forests covered 60% of the total land surface area. The prevalent national legal framework aimed to establish protected areas to cover 12.7% of the total territory by 2003. However, Peru still needs to pursue efforts to expand national parks and biodiversity reserves, and to improve access to reliable information and collection of data. Moreover, a national forest inventory is needed to improve evaluation and monitoring of Peru's development programmes. International organizations, NGOs, donors and the government provide funding for the protection of the country's reserves. More budget allocation is needed, however, to expand and improve the management of Peru's development programmes.

The Peruvian government, in collaboration with the Environment Secretariat, launched some programmes to promote and manage forestlands. Moreover, an institute to finance private projects was launched and focused primarily on generating profit and minimizing environmental impacts. Despite these efforts, the creation of a monitoring system to ensure transparency and compliance in the implementation of these projects still lacks a sufficient budget, which has resulted in constant delays.

Water contamination is one of the major constraints to the expansion of access to safe drinking water. Industrial pollution, limited wastewater collection by sewerage systems and desertification are among the main challenges to achieving MDG target 10. Moreover, poor sanitary conditions have posed threats to health and poverty reduction efforts in Peru.

Peru's slow economic development has exacerbated the problem of slum dwellers in urban and rural areas. To achieve MDG target 11, the promotion of investment towards safe and durable infrastructure is essential.<sup>1</sup>

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$43,398,612
<b>Total MPU and Bilateral:</b>	\$673,047
<b>Total:</b>	\$44,071,659

**Cumulative Total ODS Phased-Out:** 272.4 ODP tonnes

## SPOTLIGHT



### Community-based Conservation and Sustainable Use of the Lomas Ecosystem<sup>2</sup>

Lomas formations are globally unique, fog-dependent ecosystems found along the Pacific coast of Peru and northern Chile. Approximately 100,000 hectares of lomas remain worldwide, of which the largest and most diverse are the Atiquipa and Taimara lomas – over 10,000 hectares located in an isolated location in Peru's coastal desert region. However, the lomas are threatened by overgrazing and deforestation. The lomas capture fog water, therefore its loss reduces the amount of water available for agriculture, increasing the pressure on other resources.

In 2002, with the support of UNDP, and US\$ 750,000 funding from GEF plus co-financing, the residents of the Atiquipa and Taimara lomas initiated a community-led conservation and management regime to maintain the ecological balance of the lomas and its attendant biodiversity. The project enabled the communities to increase their capacity to manage natural resources, established community-managed protected areas, and restoration of three forest sites.

To date, the Atiquipa community has successfully carried out project activities such as planting seedlings and building reservoirs. The infrastructure to trap water from fog and store it in newly-built reservoirs is now operational. Areas for reforestation and conservation have been delimited, with fences and fog-water being used to irrigate new seedlings. Some who were initially against the project, are now participating, having perceived the benefits associated with conservation. In addition, dairy products produced by the community have improved in terms of quality and quantity and the project has trained community members in producing cheese and yoghurt.

By strengthening the community-based management in the region the project has enabled local stakeholders to re-establish a common property regime capable of accommodating disparate interests and eliminating the main threats to the region's biodiversity. In addition, the project established core conservation areas and ecosystem recovery areas to protect globally significant biodiversity and enhance the productivity of the lomas.



UNDP Peru puts a great emphasis on community-based programmes where projects have meant an extended variety of opportunities to live a better life in regions of Peru characterized by deep inequalities and extreme poverty. Additionally, improving the level of community involvement will emphasize the overall positive effect of these projects in the empowerment and the social organization of the actors and local communities, as well as realizing the diverse uses associated with the Peruvian native biodiversity, which in many cases is on the verge of irreversible loss.



**Xavier Michon, Resident Representative**

## PORTFOLIO

### FSSD\*

UNDP is supporting the Government of Peru to incorporate environmental considerations into national plans and strategies. For example, the principal objective of Peru's National Capacity Self-Assessment (NCSA) for Global Environmental Management is to identify and define the country's critical capacity constraints and priority capacity needs in terms of its global environmental commitments. This project, implemented by UNDP and funded by the GEF, focuses on issues cutting across the three Rio Conventions on biodiversity, climate change and desertification, and builds on existing institutional mechanisms and on-going activities to ensure coherence in sustainable development planning in the country.

### ENERGY

In order to improve access to sustainable energy and reduce GHG emissions, UNDP is assisting the Government to remove barriers to sustainable rural electrification, using photovoltaic (PV) technology in remote areas, thereby reducing the long-term increase in GHG emissions. This GEF-funded project demonstrates the viability of establishing micro-enterprises to sell, maintain and operate the PV systems, as well as creating incentives for increased investment in PV-based rural electrification. Similarly, the GEF "Renewable Energy Systems in the Peruvian Amazon Region" project is supporting the removal of technical, financial, informational and institutional barriers to renewable energies.

### BIODIVERSITY

In Peru, UNDP is ensuring the conservation and sustainable use of biodiversity through the participation of indigenous people and local communities. For example, GEF-funded project is protecting the Atiquipa and Taimara ecosystems and the attendant biodiversity through community-based conservation and sustainable use, by building the capacity of communities to manage natural resources, and establishing community-managed protected areas. Other GEF-funded projects in Peru are supporting agro-biodiversity (see Spotlight), conserving Amazon forests, and promoting ecosystem-based approaches to conservation in the Lake Titicaca region.

### CHEMICALS

In the chemicals arena, UNDP has provided extensive support to Peru under its Montreal Protocol country programme, with over 20 projects implemented in the refrigeration, foams and methyl bromide sectors. The assistance provided in the domestic and commercial refrigeration sectors has benefited numerous companies, and has provided the public sector with the ammunition to direct impact ODS phase-out. Currently, technical assistance is being provided for the implementation of a RMP with emphasis on good management practices in the manufacturing, installation, servicing and maintenance of refrigeration equipment. In the foams sector, an ODS phase-out plan is being implemented using enterprise-specific plans.



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# LATIN AMERICA AND THE CARIBBEAN

## TRINIDAD & TOBAGO

## SURINAME

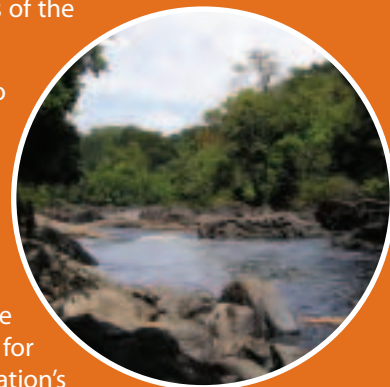
### SPOTLIGHT

#### Eco-tourism Fosters Eco-friendly Development<sup>1</sup>

The Toco region of the island of Trinidad has been one of the poorest in Trinidad and Tobago with high unemployment and a lack of income-generating opportunities. It has also been experiencing increased degradation of its forest and fresh-water ecosystems since the 1990s. The region does not have an extensive tourism industry, but its natural beauty gives it the potential to develop a vibrant, lucrative and eco-sustainable industry for the region's inhabitants. Toco's forest ecosystem falls within the local habitat of the endangered Piping Guan or Pawi (*Pipile pipile*). Significant nesting beaches of the endangered leatherback turtle (*Dermochelys coriacea*) also occur in this region.

Beginning in 1996, in partnership with the GEF Small Grants Programme, the Toco Foundation, a local multicultural foundation for integrated development, began implementing a plan to develop the county of St. David through an ecotourism project. The project established a pilot community revolving fund to provide community members with soft financing for development of small enterprises in support of an eco-tourism programme. In addition, it assisted in capacity building in areas such as acquisition of equipment and material for starting up project activities, establishment of nature trails, visitor facilities and sites for tour activities, identification of community members knowledgeable about the area's biodiversity, and providing technical expertise. Although forest removal for agriculture, lumber and building is still evident, it is declining thanks to the Toco Foundation's efforts as the main vehicle for community activities and ideas to bring about the desired changes.

The project has gained national attention as an alternative model for economic and social development. It has been successful in raising community awareness to counter development activities causing ecosystem degradation and has established alternatives, through ecotourism opportunities, for skills building, employment and funding.



# BIODIVERSITY

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET – TRINIDAD & TOBAGO

<b>Total UNDP-GEF and Co-Finance:</b>	\$445,870
<b>Total UNDP and Co-Finance:</b>	\$377,250
<b>Total MPU and Bilateral:</b>	\$514,270
<b>Total:</b>	\$1,337,390

**Cumulative Total ODS Phased-Out:** 79.4 ODP tonnes



## QUICK FACTS

### CURRENT PORTFOLIO BUDGET – SURINAME

<b>Total UNDP-GEF and Co-Finance:</b>	\$18,972,000
<b>Total UNDP and Co-Finance:</b>	\$6,040,964
<b>Total MPU and Bilateral:</b>	\$353,180
<b>Total:</b>	\$25,366,144

**Cumulative Total ODS Phased-Out:** 16.0 ODP tonnes



Some of the development challenges facing Trinidad and Tobago include approaching development in a manner that minimizes disaster risks and reduces vulnerability of the population to hazards, and addressing environmental issues such as pollution of water from industrial sources and sewage, oil pollution of beaches, deforestation and soil erosion. UNDP's focus on policy development in Suriname's Energy and Environment programme is crucial, given the country's increasingly higher international profile as a country of outstanding natural assets and cultural heritage, as well as its global interests related to sound management of the natural environment. UNDP is supporting the Government's approach to management of this sector and seeks to ensure that natural ecosystems are managed based on the principles of sustainable development so that they maintain their capacity for supporting human life, food gathering and production, social progress and economic activity.

**Inyang Ebong-Harstrup, Resident Representative**

## PORTFOLIO

### FSSD\*

UNDP is supporting the governments of Trinidad and Tobago and Suriname to integrate environmental considerations into national planning. For example, GEF-funded National Capacity Self-Assessments (NCSA) projects in both countries are evaluating existing environmental strategy documents to ensure consistency and integration, and will enable the identification of each country's particular national capacity priorities and requirements to meet their global environmental management objectives and commitments. The NCSA process is highly participatory, involving wide-ranging stakeholder consultations. In addition, in Trinidad and Tobago, UNDP is funding a project to collect data and analyse environmental statistics to enhance reporting on the MDGs.

### ENERGY

In Trinidad and Tobago, UNDP is assisting the country to comply with its commitments to the UN Framework Convention on Climate Change (UNFCCC), for example UNDP is providing funding to prepare the country's self-assessment for the UNFCCC, while GEF-funding is supporting strengthening of national capacity to address climate change issues.

In Suriname, UNDP is similarly assisting the country to prepare its First National Communication to the UNFCCC, with funding from GEF. The project includes a GHG inventory, an analysis of potential measures to reduce emissions and adapt to climate change an assessment of potential impacts of climate change, and the preparation of a national action plan to address these findings.

### BIODIVERSITY

In Suriname, UNDP is assisting the Government to integrate biodiversity concerns into national development and sector planning, through the development of a National Biodiversity Strategy and Action Plan, with funding from GEF. Projects to ensure the conservation and sustainable use of biodiversity on the ground include the "Conservation of Globally Significant Forest Ecosystems in Suriname's Guiana Shield" project, funded by the GEF, which supports management planning for the reserves and capacity building for conservation professionals, strengthens controls over the wildlife trade, and promotes progressive policy development.

### CHEMICALS

Under the Montreal Protocol, UNDP is providing continuous support towards institutional strengthening that has enabled the Government to develop and implement policies and programmes in a coordinated fashion. The implementation of the terminal phase-out management plan, which is a performance-based programme that contains specific phase-out targets, will result in a complete phase-out of CFCs by 1 January 2008. It ensures this sustainable and cost-effective outcome by employing a combination of technology transfer, training, technical and policy support tools.

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### PARTNERS

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BBTT  
Talisman Trinidad Petroleum Ltd

**Suriname**  
UNF Conservation International  
The Netherlands



### Progress Towards Environmental Sustainability

Uruguay's strategic geographic location enables it to access a vast area of coastland as well as a large presence of rivers and lakes in the mainland. These aquatic ecosystems and their rich diversity require development programmes focused on managing these resources. Environmental development strategies are needed in order to protect these areas and to decrease the high rates of pollution that harm them. Failure to link natural resources degradation with economic development will slow down the achievement of MDG 7 in Uruguay.

With most of Uruguay's total territory under individual property legislation and with a steady population growth rate, there has been a significant increase in restricted cattle settlements and the conservation of tropical forests. Despite these achievements, intensive agriculture in forestlands has diminished some domestic natural resources. Inadequate rural development and weak involvement of the private sector are some of the main challenges to promoting the protection of natural resources in Uruguay.

Lack of water management, coastal planning and lack of regulation has increased pollution rates, resulting in economic and environmental losses. Weak technology implementation and the noncompliance of the current legal framework have led to coastal degradation.

Successful legal and technical promotion of sustainable development programmes linking economic growth and natural resources preservation has resulted in the growth of organic crops. More public and private investment is required, however, to expand this sustainable trend.

Weak national policy on the matter of slum dwellers in Uruguay, as well as insufficient available data on housing conditions, require governmental initiatives towards allocating resources to infrastructure and social research efforts.

Improper use of land and the high population density in coastlands are the main causes of natural resources degradation in Uruguay. Furthermore, the absence of adequate legal mechanisms retards efforts to improve environmental sustainability. The achievement of MDG 7 will prove to be difficult without the effective implementation of a conservation programme and without an increase in environmental education and awareness in public universities and NGOs.<sup>1</sup>

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$4,049,000
<b>Total UNDP and Co-Finance:</b>	\$3,541,286
<b>Total MPU and Bilateral:</b>	\$983,557
<b>Total:</b>	\$8,573,843

**Cumulative Total ODS Phased-Out:** 147.0 ODP tonnes

## SPOTLIGHT

### Wetlands Biodiversity Conservation and Sustainable Development<sup>2</sup>

The Eastern Wetlands area covers around 350,000 hectares containing one of the most important freshwater ecosystem complexes in the Neotropical region. In the late 1970s, after being included in the Ramsar List of Wetlands of International Importance, the Government attempted to provide legal protection to this pristine ecosystem, the Bañados del Este Biosphere Reserve. However, weak institutional capacity translated into inefficient programmes that failed to protect the reserve from the negative effects of tourism.

In 1997 the Government found financial support from UNDP, GEF, the EU and the Spanish government for a programme – known as PROBIDES – to consolidate the reserve and promote sustainable projects within the wetlands region. A GEF grant of US\$ 2.5 million and an additional US\$ 1.5 million in co-financing was allocated for initiatives to conserve the reserve, including the drafting of a Master Plan to integrate lands, rivers, estuaries, coastal wetlands and coastal dunes into the regional economic agenda to ensure sustainable development. The Plan also established political frameworks and mechanisms to provide incentives and training to implement an effective system of public/private protected lands, to encourage a long-term sustainable strategy for land protection through tourist revenue.

The implementation of the Plan enabled accurate planning and zoning of the wetlands, while scientific research on the indigenous flora and fauna facilitated ecotourism projects within the low-risk biodiversity regions. The Plan also included the development of a documentation centre specializing in data-collection on the various species of the wetland habitat for a coastal management programme.

The project was successful in attaining its goals for protecting the biodiversity of the wetlands and new Private Protected Area Initiatives have now been proposed, with the support of PROBIDES and the local authority, where groups of landowners and farmers come together in an association for environmental conservation and the rational use of natural resources.



Poverty eradication and full participation of the vulnerable groups are key for the sustainability of any development strategy. The poor must organize themselves, be empowered, become skilled, become subject of rights, in order to proactively imagine and change their living and working conditions. As a change driving force, they will be more able to assume their share of responsibility and decision-making on the quality of their environment and make a sustainable use of its resources. UNDP's role is to support this emerging constituency in making this paradigmatic change.



## PORTFOLIO

**Pablo Mandeville, Resident Representative**

### FSSD\*

UNDP is supporting the Government of Uruguay to incorporate environmental concerns into national plans and strategies. For example, GEF is supporting Uruguay's NCSA process which aims to increase cooperation and communication among all the relevant stakeholders, increase public understanding of the three Rio Conventions, and build national capacity to integrate biodiversity, climate change and desertification concerns into national planning. In addition, UNDP is implementing a regional project to increase promotion of global environmental protection through the electronic media, funded by GEF, UNDP, UNEP, and the World Bank. This project will raise public awareness and interest in the region in global environmental issues and agreements.

### ENERGY

To increase access to sustainable energy in Uruguay and reduce emissions of GHGs, UNDP is demonstrating the use of biogas from Las Rosas's landfills as a form of renewable energy, in a project funded by the World Bank, GEF, UNDP resources and the private sector. UNDP is also supporting the country to respond to the impacts of climate change, through a project to prevent and mitigate environmental emergencies, by developing risk management measures and methods to anticipate climate anomalies. In addition, a project funded by GEF and CIID-IDRC (Canada) is strengthening national institutional capacity to prepare the Second National Communication to the UNFCCC, and undertake the third national GHG inventory.

### BIODIVERSITY

At a strategic level, UNDP is supporting the development Uruguay's National Biodiversity Strategy and Action Plan, with funding from GEF and UNEP. UNDP is also providing assistance to the strengthening of national capacity to implement protected areas, with funding from GEF, UNDP resources, and AECL. Other UNDP biodiversity conservation projects include the Regional Wetlands Management Programme, funded by CIID-IDRC (Canada), UNDP, and UNESCO, technical support to the PROBIDES programme (see Spotlight), from UNDP resources and AECL, and the protection of the Rio de la Plata project, funded by GEF, FFEM, GTZ, the private sector, and UNDP resources, which is currently finalizing an analysis and preparing a strategic action plan.

### CHEMICALS

UNDP and Uruguay have been working in partnership towards country compliance with the Montreal Protocol since 1991. The programmes implemented have covered most sectors including: aerosols, foams, halons and refrigeration. Through consistent support to enhanced institutional capacity, UNDP has contributed to the establishment and development of government structures that coordinate all ozone-related activities in the country. The projects implemented in the aerosol sector resulted in the development of a transition strategy to phase-out ODS use in metered dose inhalers. A concrete programme is now under implementation. Additionally, assistance is being provided in the implementation of a RMP through an incentive programme for the commercial/industrial end-user sectors.

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### PARTNERS

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FFEM IDRC  
CIDA AECL  
GTZ  
World Bank  
UNESCO

## VENEZUELA



### Progress Towards Environmental Sustainability

MDG7

Venezuela relies primarily on its enormous oil reserves in order to promote economic growth and development. Its large oil and gas reserves and its hydroelectric capacity require the implementation of strategic energy and planning policies to maximize profit and minimize environmental degradation. The sustainable use of these natural resources and the promotion of social policies are some of the necessary components to achieving MDG 7.

Between 1980 and 1995, the total land surface area covered by forests decreased from 62% to 54%. This significant deforestation resulted from intensive agriculture, overuse of wood, and forest fires. More than half of the total territory is under protected land legislation. The reformed legal framework has established new management guidelines for forests and protected areas. To ensure effective implementation of environmental programmes, increased allocation of economic resources and strategic planning are essential.

Venezuela has shown improvement in achieving the MDG target for access to safe drinking water; coverage has increased from 68% to 87% of the total population between 1990 and 2003. Despite this significant improvement, however, wastewater treatment plants are still needed in order to fulfill the increasingly high demand for water in the country. Venezuela needs to promote public sector participation, through partnerships and programmes, in order to enhance water quality and to better deliver environmental services.

The government needs to allow for more community participation as well as increase funding for environmental research programmes in order to strengthen environmental education. Progress towards achieving MDG 7 for environmental sustainability in Venezuela will require the expansion of infrastructure to rural areas so as to increase access to primary services. Institutions need to be sufficiently empowered to better deliver these basic environmental services to the population and especially to the poor.<sup>1</sup>

## QUICK FACTS

### CURRENT PORTFOLIO BUDGET

<b>Total UNDP-GEF and Co-Finance:</b>	\$33,267,119
<b>Total UNDP and Co-Finance:</b>	\$42,991,804
<b>Total MPU and Bilateral:</b>	\$836,432
<b>Total:</b>	\$77,095,355

**Cumulative Total ODS Phased-Out:** 485.8 ODP tonnes

## SPOTLIGHT



### Sustainable Land Management Brings Economic and Environmental Benefits<sup>2</sup>

The northwestern states of Falcón and Lara contain large areas of arid and semi-arid conditions. These areas are subject to severe processes of land degradation, including erosion, structural degradation, saline contamination and chemical pollution of the soil, depletion and contamination of surface soil, and subterranean water resources and the reduction, degradation and compositional modification of vegetation. These processes have significant impacts on local people's livelihoods, and the long-term productive capacity of the area's natural resources and functioning of the ecosystems.

It is often difficult to separate such complex land degradation issues into narrow categories such as agriculture, forestry, or grazing. UNDP-GEF recognizes that a true landscape approach may have to address all of these themes on multiple fronts. With GEF financing of US\$ 4.34 million and an additional US\$ 18 million in co-financing, UNDP has teamed up with ongoing efforts of the International Fund for Agricultural Development (IFAD), its PROSALAFI I & II projects, and the impressive US\$ 800 million Yacambú Quíbor Hydraulic System, which will allow irrigated agricultural production on 23,000 ha of land in Falcón's Quíbor Valley. The UNDP-GEF project to combat land degradation in the arid and semi-arid zones of Falcón and Lara will support economic development and environmental protection in addition to IFAD's efforts, creating an incremental component that will build upon a significant pre-existing baseline structure.

The development objective of this two-pronged approach is the promotion of sustainable land (soil, water and vegetation) management, leading to global benefits in terms of ecosystem function and resilience, demographic stability, carbon capture, and biodiversity conservation. At the same time, the project contributes to meeting the livelihood needs of local populations by addressing poverty in watershed areas, and addressing concerns of economic development and environmental sustainability at the national level.

In Venezuela, the UNDP is playing a role more and more oriented to contribute to capacity building and environmental management through programmes and projects designated to advance topics occupying the global environmental agenda, identifying opportunities of synergy and cooperation. Also, UNDP supports public information and policy dialogue activities in relation to Multilateral Environmental Agreements, mainly those about climate change and biodiversity conservation. For this, UNDP is working on the fortifying governmental, nongovernmental, academic, scientific, private, and financial institutions, around the objectives of sustainable development. Additionally, UNDP is promoting the development of a proactive portfolio of environmental projects, programmes and initiatives, through the scheme of interinstitutional and multisectorial alliances.<sup>3</sup>



## PORTFOLIO

**David McLachlan-Karr, Resident Representative**

### WATER

UNDP is supporting Venezuela to improve management of water resources through a government-funded hydro-meteorology project that aims to provide weather and hydrological forecast, offer alert and strategies when severe weather forecast reach Venezuela and capture hydrometeorology information to sustainably manage water bodies, agricultural crops and natural resources.

### ENERGY

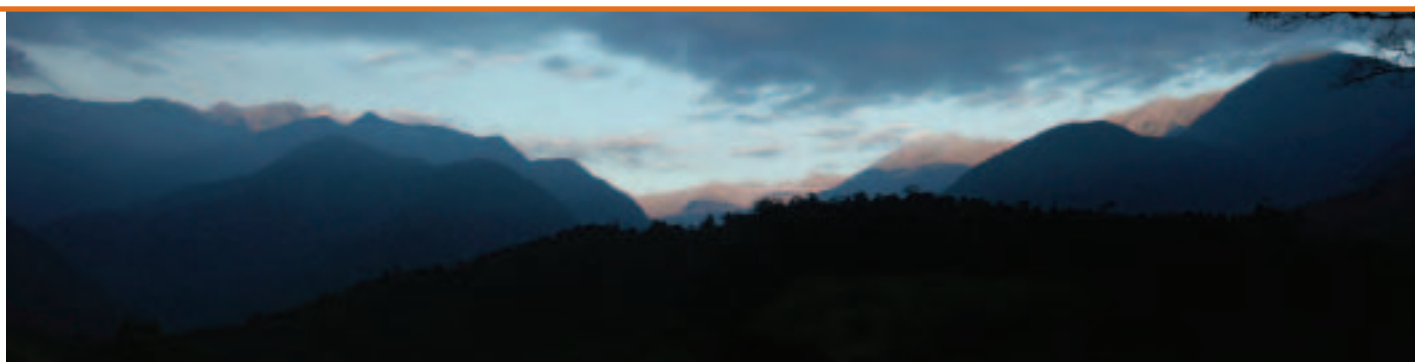
To reduce emissions of GHG to benefit the local and global environment, UNDP is implementing an environmentally sustainable transport project in the city of Valencia, which will build on other GEF and non-GEF projects and learn from global and regional achievements in the field. Also with funding from GEF, UNDP is supporting the Government to fulfil its obligations to the UNFCCC by facilitating the preparation of the First National Communication to the Convention, which includes an inventory of GHGs, and an assessment of Venezuela's vulnerabilities to climate change.

### BIODIVERSITY

UNDP is supporting the promotion of biodiversity conservation and sustainable use of natural resources through a government-funded project to incorporate public and private investment into environmental projects. GEF is also funding conservation projects in the North Tropical Andes and the Caura River Basin, as well as a project to protect the rich storehouse of wetland biodiversity of the Orinoco Delta Biosphere Reserve and Lower Orinoco River Basin, against threats such as hunting, fishing, and forest harvesting activities, through the installation of new conservation activities, and by adapting the management framework to include the participation of indigenous communities, other stakeholders and the private sector.

### CHEMICALS

Thirty-one projects implemented over a period of 14 years have contributed significantly towards Venezuela's progress in maintaining compliance under the Montreal Protocol. While ongoing efforts focus on achievement of direct ODS phase-out impact in the refrigeration and halons sectors, UNDP is also supporting the country by providing institutional strengthening support.



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### PARTNERS

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Government of UK

<sup>1</sup>MDGR 2004 [http://www.undg.org/documents/5896-Venezuela\\_MDG\\_Report.pdf](http://www.undg.org/documents/5896-Venezuela_MDG_Report.pdf); <sup>2</sup>GEF Online database: <http://www.gefonline.org/projectDetails.cfm?projID=2438>; <sup>3</sup><http://www.pnud.org.ve/temas/ambiente.asp>

**SUSTAINABLE  
DEVELOPMENT  
INDICATORS  
AND  
INTERNATIONAL  
ENVIRONMENTAL  
CONVENTION  
RATIFICATIONS**



## **SUSTAINABLE DEVELOPMENT INDICATORS:**

- 1. Total Population**
  - Human Development Index**
  - Total Land Area**
  - Urban Population**
  - Population with Sustainable Access to Improved Sanitation**
  - Population with Sustainable Access to an Improved Water Source**
  - Fishery Production Totals**
- 2. Traditional Fuel Consumption**
  - Electricity Consumption**
  - GDP Per Unit of Energy Use**
  - Carbon Dioxide Emissions Per Capita**
  - Forested Land Area**
  - Protected Areas**
  - Ozone-depleting CFCs Consumption**

## **INTERNATIONAL ENVIRONMENTAL CONVENTION RATIFICATIONS:**

- 1. Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal**
- Convention on Biological Diversity**
  - Cartagena Protocol on Biosafety**
- Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)**
- Stockholm Convention on Persistent Organic Pollutants**
- United Nations Convention to Combat Desertification**
- 2. United Nations Convention on the Law of the Sea**
- United Nations Framework Convention on Climate Change (UNFCCC)**
  - Kyoto Protocol to the UNFCCC**
- Vienna Convention for the Protection of the Ozone Layer**
  - Montreal Protocol on Substances that Deplete the Ozone Layer**

# 1. SUSTAINABLE DEVELOPMENT INDICATORS

	Total Population (millions) 2003	Human Development Index (ranking) 2004	Total Land Area (thousand hectares) 2001	Urban Population (% of total) <sup>a</sup> 2003 <sup>b</sup>	Population with sustainable access to improved sanitation (%) 2002	Population with sustainable access to improved water source (%) 2002	Fishery Production Totals: Capture, Inland and Marine (metric tons) 2002
Afghanistan	27.2	..	65209	23.3	8	13	900
Albania	3.1	65	2875	43.8	89	97	3957
Algeria	31.9	108	238174	58.8	92	87	134325
Andorra	0.1	..	45	91.7	100	100	<0.5
Angola	15	166	124670	35.7	30	50	260797
Antigua and Barbuda	0.1	55	44	37.8	95	91	2374
Argentina	38	34	278040	90.1	..	..	944346
Armenia	3	82	2980	64.5	84	92	465
Australia	19.7	3	774122	91.9	100	100	194398
Austria	8.1	14	8386	65.8	100	100	350
Azerbaijan	8.3	91	8660	50.1	55	77	11334
Bahamas	0.3	51	1388	89.4	100	97	9384
Bahrain	0.7	40	71	90	..	..	11204
Bangladesh	136.6	138	14400	24.3	48	75	1103855
Barbados	0.3	29	43	51.7	99	100	2500
Belarus	9.9	62	20760	70.9	..	100	5575
Belgium	10.4	6	3312	97.2	..	..	29028
Belize	0.3	99	2296	48.4	47	91	24753
Benin	7.9	161	11262	44.6	32	68	40663
Bhutan	2.1	134	4700	8.5	70	62	300
Bolivia	8.8	114	109858	63.4	45	85	5800
Bosnia and Herzegovina	3.9	66	5120	44.4	93	98	2500
Botswana	1.8	128	58173	51.6	41	95	139
Brazil	181.4	72	854740	83	75	89	822159
Brunei Darussalam	0.4	33	577	76.1	..	..	2058
Bulgaria	7.8	56	11091	69.8	100	100	15007
Burkina Faso	12.4	175	27400	17.8	12	51	8500
Burundi	7	173	2783	10	36	79	9000
Cambodia	13.5	130	18104	18.6	16	34	406182
Cameroon	15.7	141	47544	51.4	48	63	120135
Canada	31.6	4	997061	80.4	100	100	1013997
Cape Verde	0.5	105	403	55.9	42	80	8000
Central African Republic	3.9	169	62298	42.7	27	75	15000
Chad	9.1	167	128400	25	8	34	84000
Chile	16	43	75663	87	92	95	4271475
China	1300 <sup>d</sup>	94	959805	38.6	44	77	16553144
Colombia	44.2	73	113891	76.4	86	92	135002
Comoros	0.8	136	223	35	23	94	12200
Congo	3.8	144	34200	53.5	9	46	43000
Congo, Dem. Rep. of the	54.2	168	234486	31.8	29	46	220000
Costa Rica	4.2	45	5110	60.6	92	97	32938
Côte d'Ivoire	17.6	163	32246	44.9	40	84	79743
Croatia	4.5	48	5654	59	..	..	21236
Cuba	11.2	52	11086	75.7	98	91	33892
Cyprus	0.8	30	925	69.2	100	100	1978
Czech Republic	10.2	32	7887	74.3	..	..	4983
Denmark	5.4	17	4309	85.4	..	100	1442068
Djibouti	0.8	154	2320	83.6	50	80	350
Dominica	0.1	95	75	72	83	97	1217
Dominican Republic	8.6	98	4873	59.3	57	93	18339
Ecuador	12.9	100	28356	61.8	72	86	318540
Egypt	71.3	120	100145	42.2	68	98	425171
El Salvador	6.6	103	2104	59.4	63	82	34455

# 1. SUSTAINABLE DEVELOPMENT INDICATORS

	Total Population (millions) 2003	Human Development Index (ranking) 2004	Total Land Area (thousand hectares) 2001	Urban Population (% of total) <sup>a</sup> 2003 <sup>b</sup>	Population with sustainable access to improved sanitation (%) 2002	Population with sustainable access to improved water source (%) 2002	Fishery Production Totals: Capture, Inland and Marine (metric tons) 2002
Equatorial Guinea	0.5	109	2805	48	53	44	3500
Eritrea	4.1	156	11760	20	9	57	7932
Estonia	1.3	36	4510	69.5	..	..	101452
Ethiopia	73.8	170	110430	15.7	6	22	12300
Fiji	0.8	81	1827	51.7	98	..	44424
Finland	5.2	13	33815	61	100	100	144808
France	60	16	55150	76.3	..	..	620178
Gabon	1.3	122	26767	83.7	36	87	40875
Gambia	1.4	155	1130	26.2	53	82	45769
Georgia	4.6	97	6970	52	83	76	2537
Germany	82.6	19	35703	88.1	..	100	224451
Ghana	21.2	131	23854	45.4	58	79	371178
Greece	11.1	24	13196	60.9	..	..	88987
Grenada	0.1	93	34	40.7	97	95	2171
Guatemala	12	121	10889	46.3	61	95	24164
Guinea	9	160	24586	34.9	13	51	104000
Guinea-Bissau	1.5	172	3612	34	34	59	5000
Guyana	0.7	104	21497	37.6	70	83	48017
Haiti	8.3	153	2775	37.5	34	71	5010
Honduras	6.9	115	11209	45.6	68	90	11402
Hong Kong, China (SAR)	6.9	23	..	100	..	..	169790
Hungary	10.2	38	9303	65.2	95	99	6750
Iceland	0.3	7	10300	92.8	..	100	2129655
India	1070.8	127	328726	28.3	30	86	3834662
Indonesia	217.4	111	190457	45.5	52	78	4506475
Iran, Islamic Rep. of	68.2	101	164820	66.6	84	93	324853
Iraq	27.3	..	43832	67.2	80	81	13000
Ireland	4	10	7027	59.9	..	..	282331
Israel	6.5	22	2106	91.6	..	100	4880
Italy	58	21	30134	67.4	..	..	271102
Jamaica	2.6	79	1099	52.2	80	93	5650
Japan	127.7	9	37780	65.5	100	100	4445152
Jordan	5.4	90	8921	79.1	93	91	526
Kazakhstan	14.9	78	272490	55.9	72	86	24910
Kenya	32.7	148	58037	39.3	48	62	144783
Kiribati	0.1	..	73	47.3	39	64	31001
Korea, Dem. Rep.	22.3	..	12054	61.1	59	100	205000
Korea, Rep. of	47.5	28	9926	80.3	..	92	1669429
Kuwait	2.5	44	1782	96.2	..	..	5900
Kyrgyzstan	5.1	110	19990	34	60	76	48
Lao People's Dem. Rep.	5.7	135	23680	20.7	24	43	33440
Latvia	2.3	50	6460	66.3	..	..	113677
Lebanon	3.5	80	1040	87.5	98	100	3970
Lesotho	1.8	145	3035	18	37	76	24
Liberia	3.2	..	11137	46.7	26	62	11500
Libyan Arab Jamahiriya	5.6	58	175954	86.2	97	72	33676
Liechtenstein	(.)	..	16	21.6	..	..	< 0.5
Lithuania	3.5	41	6520	66.8	..	..	150146
Luxembourg	0.5	15	(See Belgium)	91.8	..	100	< 0.5
Macedonia, TFYR	2	60	2571	59.6	..	..	148
Madagascar	17.6	150	58704	26.6	33	45	141310
Malawi	12.3	165	11848	16.3	46	67	41329
Malaysia	24.4	59	32975	63.8	..	95	1279635

# 1. SUSTAINABLE DEVELOPMENT INDICATORS

	Total Population (millions) 2003	Human Development Index (ranking) 2004	Total Land Area (thousand hectares) 2001	Urban Population (% of total) <sup>a</sup> 2003 <sup>b</sup>	Population with sustainable access to improved sanitation (%) 2002	Population with sustainable access to improved water source (%) 2002	Fishery Production Totals: Capture, Inland and Marine (metric tons) 2002
Maldives	0.3	84	30	28.8	58	84	160981
Mali	12.7	174	124019	32.3	45	48	100000
Malta	0.4	31	32	91.6	..	100	1004
Marshall Islands	0.1	..	18	66.4	82	85	38842
Mauritania	2.9	152	102552	61.7	42	56	78902
Mauritius	1.2	64	204	43.3	99	100	10706
Mexico	104.3	53	195820	75.5	77	91	1450920
Micronesia, Fed. Sts.	0.1	..	70	29.4	28	94	20537
Moldova, Rep. of	4.2	113	3385	46.1	68	92	565
Monaco	(.)	..	..	100	..	..	3
Mongolia	2.6	117	156650	56.8	59	62	129
Morocco	30.6	125	44655	57.4	61	80	894962
Mozambique	19.1	171	80159	35.6	27	42	36462
Myanmar	49.5	132	67658	29.5	73	80	1312642
Namibia	2	126	82429	32.4	30	80	624891
Nauru	(.)	..	2	100	..	..	21
Nepal	26.1	140	14718	15	27	84	17900
Netherlands	16.1	5	4153	65.8	100	100	464035
New Zealand	3.9	18	27053	85.9	..	..	559289
Nicaragua	5.3	118	13000	57.3	66	81	23670
Niger	13.1	176	126700	22.2	12	46	23520
Nigeria	125.9	151	92377	46.6	38	60	481056
Norway	4.6	1	32388	78.6	..	100	2743184
Occupied Palestinian Territories	3.5	102	608	71.1	76	94	2378
Oman	2.5	74	30950	77.6	89	79	142670
Pakistan	151.8	142	79610	34.1	54	90	599104
Palau	(.)	..	46	68.7	83	84	1008
Panama	3.1	61	7552	57.2	72	91	305081
Papua New Guinea	5.7	133	46284	13.2	45	39	149002
Paraguay	5.9	89	40675	57.2	78	83	25000
Peru	27.2	85	128522	73.9	62	81	8766991
Philippines	80.2	83	30000	61	73	85	2033015
Poland	38.6	37	31269	61.9	..	..	222441
Portugal	10.4	26	9198	54.6	..	..	200037
Qatar	0.7	47	1100	92	100	100	6880
Romania	21.9	69	23839	54.6	51	57	6989
Russian Federation	144.6	57	1707540	73.3	87	96	3232351
Rwanda	8.8	159	2634	18.5	41	73	7000
Saint Kitts and Nevis	(.)	39	36	32.2	96	99	355
Saint Lucia	0.2	71	62	30.5	89	98	1637
Saint Vincent and the Grenadines	0.1	87	39	58.2	..	..	43879
Samoa (Western)	0.2	75	284	22.3	100	88	12392
San Marino	(.)	..	6	88.7	..	..	0
São Tomé and Príncipe	0.1	123	96	37.8	24	79	3500
Saudi Arabia	23.3	77	214969	87.6	..	..	55330
Senegal	11.1	157	19672	49.6	52	72	375824
Serbia and Montenegro	10.5	..	10217	52	87	..	1394
Seychelles	0.1	35	45	50	..	87	63209
Sierra Leone	5.1	177	7174	38.8	39	57	82990
Singapore	4.2	25	62	100	..	..	2769
Slovakia	5.4	42	4901	57.5	100	100	1746
Slovenia	2	27	2025	50.8	..	..	1686
Solomon Islands	0.5	124	2890	16.5	31	70	31057



# 1. SUSTAINABLE DEVELOPMENT INDICATORS

	Total Population (millions) 2003	Human Development Index (ranking) 2004	Total Land Area (thousand hectares) 2001	Urban Population (% of total) <sup>a</sup> 2003 <sup>b</sup>	Population with sustainable access to improved sanitation (%) 2002	Population with sustainable access to improved water source (%) 2002	Fishery Production Totals: Capture, Inland and Marine (metric tons) 2002
Somalia	7.7	..	63766	34.9	25	29	18000
South Africa	46.9	119	122104	56.9	67	87	766284
Spain	42.1	20	50599	76.5	..	..	882642
Sri Lanka	20.4	96	6561	21.1	91	78	298584
Sudan	34.9	139	250581	38.9	34	69	58008
Suriname	0.4	67	16327	76	93	92	18700
Swaziland	1	137	1736	23.6	52	52	70
Sweden	9	2	44996	83.4	100	100	294963
Switzerland	7.2	11	4129	67.6	100	100	1544
Syrian Arab Republic	18.1	106	18518	50.2	77	79	9178
Tajikistan	6.4	116	14310	24.8	53	58	181
Tanzania, U. Rep. of	36.9	162	94509	35.4	46	73	323855
Thailand	63.1	76	51312	32	99	85	2921216
Timor-Leste	0.8	158	1487	7.7	33	52	350
Togo	5.8	143	5679	35.2	34	51	20946
Tonga	0.1	63	75	33.5	97	100	4804
Trinidad and Tobago	1.3	54	513	75.4	100	91	12539
Tunisia	9.9	92	16361	63.7	80	82	96732
Turkey	71.3	88	77482	66.3	83	93	566682
Turkmenistan	4.7	86	48810	45.4	62	71	12812
Tuvalu	(.)	..	..	55.1	88	93	..
Uganda	26.9	146	24104	12.3	41	56	221898
Ukraine	47.5	70	60370	67.3	99	98	265599
United Arab Emirates	4	49	8360	85.1	100	..	97574
United Kingdom	59.3	12	24291	89.1	..	..	689919
United States	292.6	8	962909	80.1	100	100	4937566
Uruguay	3.4	46	17622	92.5	94	98	108765
Uzbekistan	25.8	107	44740	36.7	57	89	2009
Vanuatu	0.2	129	1219	22.9	..	60	17239
Venezuela	25.8	68	91205	87.6	68	83	515384
Viet Nam	82	112	33169	25.8	41	73	1508000
Yemen	19.7	149	52797	25.7	30	69	159262
Zambia	11.3	164	75261	35.9	45	55	65000
Zimbabwe	12.9	147	39076	35	57	83	13000

.. Data not available  
(.) Less than half the unit shown  
< Less than

High Human Development: Ranks 1-55  
Medium Human Development: Ranks 56-141  
Low Human Development: Ranks 142-177

**a.** Because data are based on national definitions of what constitutes a city or metropolitan area, cross-country comparisons should be made with caution.

**b.** Data refer to medium-variant projections.; **c.** Included in data for South Africa.; **d.** Population estimates include Taiwan, province of China.; **e.** Includes Monaco.; **f.** Includes San Marino.; **g.** Includes Svalbard and Jan Mayen Islands.; **h.** Data refer to the South African Customs Union, which includes Botswana, Lesotho, Namibia and Swaziland.; **i.** Includes Liechtenstein.

## Source:

**Column 1:** United Nations. 2005. World Population Prospects 1950-2050: The 2004 Revision. Database. Department of Economic and Social Affairs, Population Division. New York

**Column 2:** UNDP. 2004. Human Development Report. UNDP. New York. [<http://hdr.undp.org>].

**Column 3:** United Nations. 2005. Food and Agriculture Organization of the United Nations (FAO), 2004. FAOSTAT on-line statistical service. [<http://apps.fao.org/>]. Accessed March 2005; Rome: FAO.

**Column 4:** UNDP. 2004. World Urbanization Prospects: The 2003 Revision Database. Department of Economic and Social Affairs, Population Division. New York.

**Columns 5 and 6:** United Nations. 2005. Millennium Indicators Database. Department of Economic and Social Affairs, Statistics Division, New York. [<http://millenniumindicators.un.org>]. Accessed March 2005; based on a joint effort by the United Nations Children's Fund (UNICEF) and the World Health Organization.

**Column 7:** United Nations. 2005. Fishery Information, Data and Statistics Unit, Food and Agriculture Organization of the United Nations (FAO). 2004. FISHSTAT Plus: Universal software for fishery statistical time series, Version 2.3. [<http://www.fao.org/fi/statist/FISOFT/FISHPLUS.asp>]. Accessed March 2005; Capture production dataset. Rome: FAO.

## 2. SUSTAINABLE DEVELOPMENT INDICATORS

	Traditional Fuel Consumption (% of Total Energy Requirements) 2002	Electricity Consumption Per Capita (Kilowatt Hours) 2002	GDP Per Unit of Energy Use (2000 PPP US\$ per kg of Oil Equivalent) 2002	Carbon Dioxide Emissions Per Capita 2002	Share of World Total (%) 2000	Forested Land Area as Percentage of Land Area (%) 2000	Protected Areas (Sq KM) 2004	Ozone-depleting CFCs Consumption (ODP metric tons) 2001
<b>Afghanistan</b>	61.5	28	..	(.)	(.)	2	2186	..
<b>Albania</b>	5.1	1,844	6.7	0.8	(.)	36	1029	69
<b>Algeria</b>	6	881	5.6	2.9	0.4	1	119699	1022
<b>Andorra</b>	..	..	..	..	..	..	..	..
<b>Angola</b>	32	135	3.2	0.5	(.)	56	154580	9
<b>Antigua and Barbados</b>	..	1,438	..	4.7	(.)	21	66	3
<b>Argentina</b>	3.2	2,383	6.9	3.5	0.6	13	182052	3293
<b>Armenia</b>	0	1,554	4.8	1	(.)	12	2991	163
<b>Australia</b>	9.5	11,299	4.8	18.3	1.5	20	1426139	6
<b>Austria</b>	3.7	7,845	7.5	7.8	0.3	47	23475	..
<b>Azerbaijan</b>	0	2,579	2.2	3.4	0.1	13	5151	52
<b>Bahamas</b>	..	6,084	..	6.7	(.)	84	2814	..
<b>Bahrain</b>	..	10,830	1.7	30.6	0.1	..	60	106
<b>Bangladesh</b>	61.6	119	10.5	0.3	0.1	10	1115	..
<b>Barbados</b>	6.3	3,193	..	4.6	(.)	5	3	12
<b>Belarus</b>	5.5	3,326	2.1	6	0.3	45	13153	0
<b>Belgium</b>	1	8,749	4.8	6.8	0.4	..	1052	..
<b>Belize</b>	..	713	..	3.1	(.)	59	10833	28
<b>Benin</b>	72.7	92	3	0.3	(.)	24	26428	54
<b>Bhutan</b>	87.8	236	..	0.2	(.)	64	12408	..
<b>Bolivia</b>	..	485	4.8	1.2	(.)	49	211022	77
<b>Bosnia and Herzegovina</b>	7.7	2,527	5.3	4.8	0.1	45	271	200
<b>Botswana</b>	.. <sup>c</sup>	.. <sup>c</sup>	..	2.3	(.)	22	175650	..
<b>Brazil</b>	26.7	2,183	6.8	1.8	1.3	64	1586398	6231
<b>Brunei Darussalam</b>	0	8,903	..	17.7	(.)	84	3421	31
<b>Bulgaria</b>	6.2	4,624	2.9	5.3	0.2	33	11184	0
<b>Burkina Faso</b>	89.4	32	..	0.1	(.)	26	42082	20
<b>Burundi</b>	95.6	25	..	(.)	(.)	4	1547	46
<b>Cambodia</b>	92.3	10	..	(.)	(.)	53	43465	..
<b>Cameroon</b>	66.9	207	4.7	0.2	(.)	51	43159	364
<b>Canada</b>	4.6	18,541	3.6	16.5	1.9	27	866022	0
<b>Cape Verde</b>	..	99	..	0.3	(.)	21	..	..
<b>Central African Republic</b>	83.3	28	..	0.1	(.)	37	103334	..
<b>Chad</b>	97.2	12	..	(.)	(.)	10	119773	32
<b>Chile</b>	12.5	2,918	6	3.6	0.3	21	141373	470
<b>China</b>	5.3	1,484	4.6	2.7	12.1	18	1467363	33923
<b>Colombia</b>	16	1,019	9.8	1.3	0.3	48	373234	1165
<b>Comoros</b>	..	25	..	0.1	(.)	4	404	2
<b>Congo</b>	72.2	210	3.7	0.6	(.)	65	48740	2
<b>Congo, Dem. Rep. of the</b>	94.9	91	2.2	(.)	(.)	60	197406	639
<b>Costa Rica</b>	24.9	1,765	9.4	1.4	(.)	39	17509	145
<b>Côte d'Ivoire</b>	72.7	197	3.7	0.4	(.)	22	54854	148
<b>Croatia</b>	5.4	3,558	5.3	4.7	0.1	32	5724	114
<b>Cuba</b>	33.8	1,395	..	2.1	0.1	21	35193	504
<b>Cyprus</b>	0	5,323	..	8.3	(.)	19	920	138
<b>Czech Republic</b>	2.4	6,368	3.7	11.2	0.5	34	12451	3
<b>Denmark</b>	12.7	6,925	8.1	8.9	0.2	11	4804	..
<b>Djibouti</b>	..	296	..	0.5	(.)	0	0	..
<b>Dominica</b>	..	1,197	..	1.5	(.)	61	204	..
<b>Dominican Republic</b>	7.2	1,326	6.8	2.5	0.1	28	20447	486
<b>Ecuador</b>	17.5	943	4.8	2	0.1	38	208936	207
<b>Egypt</b>	9.2	1,287	4.6	2.1	0.6	0	140744	1335
<b>El Salvador</b>	32.8	665	7.1	1	(.)	6	258	117

## SUSTAINABLE DEVELOPMENT INDICATORS

	Traditional Fuel Consumption (% of Total Energy Requirements) 2002	Electricity Consumption Per Capita (Kilowatt Hours) 2002	GDP Per Unit of Energy Use (2000 PPP US\$ per kg of Oil Equivalent) 2002	Carbon Dioxide Emissions Per Capita 2002	Share of World Total (%) 2000	Forested Land Area as Percentage of Land Area (%) 2000	Protected Areas (Sq KM) 2004	Ozone-depleting CFCs Consumption (ODP metric tons) 2001
Equatorial Guinea	57.1	54	..	0.4	(.)	63	5860	..
Eritrea	75	66	..	0.2	(.)	14	5006	..
Estonia	17.7	5,767	3.6	11.8	0.1	49	10392	0
Ethiopia	93.3	32	2.4	0.1	(.)	4	186198	..
Fiji	..	625	..	1.6	(.)	45	493	0
Finland	6.2	16,694	3.7	12	0.2	72	30698	..
France	4.7 <sup>e</sup>	8,123 <sup>e</sup>	5.8	6.2	1.6 <sup>e</sup>	28	73190	..
Gabon	..	1,226	5.1	2.6	(.)	85	46484	6
Gambia	63.6	96	..	0.2	(.)	48	565	6
Georgia	25.2	1,508	4.4	0.7	(.)	44	3040	19
Germany	..	6,989	6.2	9.8	3.4	31	112446	..
Ghana	82.5	416	5	0.4	(.)	28	36871	36
Greece	4.1	5,247	6.8	8.5	0.4	28	6884	..
Grenada	0	1,913	..	2.3	(.)	15	7	..
Guatemala	58.6	660	6.4	0.9	(.)	26	25859	265
Guinea	87.8	95	..	0.1	(.)	28	15689	35
Guinea-Bissau	50	41	..	0.2	(.)	61	..	..
Guyana	42.5	1,195	..	2.2	(.)	79	4860	20
Haiti	45.5	73	6.6	0.2	(.)	3	74	169
Honduras	52.8	696	5	0.9	(.)	48	26058	122
Hong Kong, China (SAR)	..	6,237	10.6	5.2	0.1	..	547	..
Hungary	3.2	3,972	5.3	5.6	0.2	20	8300	0
Iceland	0	29,247	2.4	7.7	(.)	0	9807	0
India	20	569	5	1.2	4.7	22	175735	..
Indonesia	17.6	463	4.1	1.4	1.2	58	435301	5003
Iran, Islamic Rep. of	0.1	2,075	3.1	5.3	1.4	5	112739	4205
Iraq	..	1,542	..	3	0.3	2	5	..
Ireland	1.1	6,560	9.1	11	0.2	10	806	..
Israel	0	6,698	6	11	0.3	6	4075	0
Italy	1.7 <sup>f</sup>	5,840 <sup>f</sup>	8.5	7.5	1.9 <sup>f</sup>	34	57244	..
Jamaica	6.5	2,640	2.5	4.1	(.)	30	3647	49
Japan	0.2	8,612	6.4	9.4	5.2	64	64215	-6
Jordan	1.4	1,585	3.9	3.2	0.1	1	9734	321
Kazakhstan	0.2	4,030	1.8	9.9	0.5	5	77919	..
Kenya	64.9	155	2	0.2	(.)	30	75446	169
Kiribati	..	149	..	0.3	(.)	..	..	..
Korea, Dem. Rep.	..	1,524	..	6.5	0.8	68	3159	..
Korea, Rep. of	..	7,058	3.9	9.4	1.9	63	7012	6724
Kuwait	0	16,544	1.7	24.6	0.2	0	597	354
Kyrgyzstan	0	2,252	3.1	1	(.)	5	7152	53
Lao People's Dem. Rep.	77.3	133	..	0.2	(.)	54	37362	41
Latvia	47.4	2,703	4.9	2.7	(.)	47	10698	..
Lebanon	0.5	2,834	3.8	4.7	0.1	4	78	533
Lesotho	.. <sup>c</sup>	.. <sup>c</sup>	..	..	..	1	68	..
Liberia	88.7	164	..	0.1	(.)	31	15785	..
Libyan Arab Jamahiriya	0.9	3,915	..	9.1	0.2	0	2209	985
Liechtenstein	..	..	..	..	..	..	..	..
Lithuania	13.9	3,239	4	3.6	0.1	32	7143	0
Luxembourg	..	10,547	6.3	21.1	(.)	..	441	..
Macedonia, TFYR	8.9	3,363	..	5.1	(.)	36	1833	47
Madagascar	81.5	42	..	0.1	(.)	20	18448	..
Malawi	85	80	..	0.1	(.)	27	19405	..
Malaysia	1.5	3,234	4.1	6.3	0.6	59	114101	1947

## 2. SUSTAINABLE DEVELOPMENT INDICATORS

	Traditional Fuel Consumption (% of Total Energy Requirements) 2002	Electricity Consumption Per Capita (Kilowatt Hours) 2002	GDP Per Unit of Energy Use (2000 PPP US\$ per kg of Oil Equivalent) 2002	Carbon Dioxide Emissions Per Capita 2002	Share of World Total (%) 2000	Forested Land Area as Percentage of Land Area (%) 2000	Protected Areas (Sq KM) 2004	Ozone-depleting CFCs Consumption (ODP metric tons) 2001
Maldives	0	448	..	3.4	(.)	3	..	14
Mali	85	33	..	(.)	(.)	11	26830	..
Malta	..	4,939	7.6	7.5	(.)	..	59	63
Marshall Islands	..	..	..	..	..	..	701	..
Mauritania	..	58	..	1.1	(.)	0	17460	..
Mauritius	..	1,631	..	2.6	(.)	8	162	14
Mexico	8	2,280	5.6	3.7	1.8	29	181073	2224
Micronesia, Fed. Sts.	..	..	..	..	..	22	72	..
Moldova, Rep. of	2.2	1,314	2	1.6	(.)	10	473	23
Monaco	..	..	..	..	..	..	..	..
Mongolia	2.1	1,318	..	3.3	(.)	7	217912	9
Morocco	2.2	560	10.1	1.4	0.2	7	5673	435
Mozambique	80.3	378	2.3	0.1	(.)	39	75260	..
Myanmar	74.1	135	..	0.2	(.)	52	38532	39
Namibia	.. <sup>c</sup>	.. <sup>c</sup>	10.2	1.1	(.)	10	124884	24
Nauru	..	2,308	..	10.8	(.)	..	..	..
Nepal	..	62	3.8	0.2	(.)	27	24453	..
Netherlands	..	6,958	5.8	9.4	0.6	11	7844	..
New Zealand	2.2	10,301	4.6	8.7	0.1	30	87449	0
Nicaragua	47.9	496	5.7	0.7	(.)	27	29406	35
Niger	85.3	40	..	0.1	(.)	1	84141	29
Nigeria	46.4	148	1.3	0.4	0.2	15	57270	3666
Norway	.. <sup>g</sup>	26,640 <sup>g</sup>	6.1	12.2	0.2	29	20703	-48
Occupied Palestinian Territories	..	..	..	..	..	..	..	..
Oman	0	5,219	3	12.1	0.1	0	29828	207
Pakistan	..	469	4.3	0.7	0.5	3	75311	1666
Palau	..	8,300	..	11.9	(.)	76	1348	..
Panama	17.8	1,654	5.9	2	(.)	39	31125	180
Papua New Guinea	61.9	249	..	0.4	(.)	68	43996	15
Paraguay	45.7	1,129	6.3	0.7	(.)	59	23664	116
Peru	20.6	907	10.7	1	0.1	51	219477	189
Philippines	12.8	610	7.6	0.9	0.3	19	40930	2049
Poland	5.5	3,549	4.4	7.7	1.3	30	90527	179
Portugal	..	4,647	6.9	6	0.3	40	7790	..
Qatar	0	17,489	..	53.1	0.2	0	137	85
Romania	11.8	2,385	3.8	4	0.4	28	12315	186
Russian Federation	2.9	6,062	1.9	9.9	6.2	50	1618076	0
Rwanda	90.4	23	..	0.1	(.)	12	2008	..
Saint Kitts and Nevis	..	2,619	..	2.8	(.)	11	26	..
Saint Lucia	..	1,698	..	2.4	(.)	15	104	3
Saint Vincent and the Grenadines	..	1,000	..	1.6	(.)	15	83	7
Samoa (Western)	..	597	..	0.8	(.)	37	239	2
San Marino	..	..	..	..	..	..	..	..
São Tomé and Príncipe	..	115	..	0.6	(.)	28	..	..
Saudi Arabia	..	6,620	2.1	15	1.6	1	828594	..
Senegal	72.1	141	4.8	0.4	(.)	32	22422	98
Serbia and Montenegro	8.2	3,460	..	4.4	0.2	28	3871	..
Seychelles	..	2,704	..	6.8	(.)	67	452	1
Sierra Leone	91.2	54	..	0.1	(.)	15	3244	..
Singapore	0.2	7,961	3.8	13.8	0.3	3	30	22
Slovakia	1.6	5,256	3.6	6.8	0.2	45	12347	3
Slovenia	7.3	6,791	5.1	7.8	0.1	55	1498	3
Solomon Islands	..	69	..	0.4	(.)	89	412	1



## 2. SUSTAINABLE DEVELOPMENT INDICATORS

	Traditional Fuel Consumption (% of Total Energy Requirements) 2002	Electricity Consumption Per Capita (Kilowatt Hours) 2002	GDP Per Unit of Energy Use (2000 PPP US\$ per kg of Oil Equivalent) 2002	Carbon Dioxide Emissions Per Capita 2002	Share of World Total (%) 2000	Forested Land Area as Percentage of Land Area (%) 2000	Protected Areas (Sq KM) 2004	Ozone-depleting CFCs Consumption (ODP metric tons) 2001
Somalia	100	33	..	..	..	12	5246	..
South Africa	11.8 <sup>b</sup>	4,715 <sup>b</sup>	3.9	7.4	1.4	7	78923	16
Spain	0.6	6,154	6.5	7.3	1.2	29	48071	..
Sri Lanka	41.6	366	8	0.5	(.)	30	14330	190
Sudan	73.7	89	3.6	0.3	(.)	26	123250	266
Suriname	3.3	4,447	..	5.1	(.)	91	19812	..
Swaziland	.. <sup>c</sup>	.. <sup>c</sup>	..	0.9	(.)	30	601	1
Sweden	19.4	16,996	4.4	5.8	0.2	66	49120	..
Switzerland	7.7 <sup>i</sup>	8,483 <sup>i</sup>	7.8	5.7	0.2	30	11852	..
Syrian Arab Republic	0	1,570	3.2	2.8	0.2	3	..	1392
Tajikistan	..	2,559	1.8	0.7	(.)	3	26029	28
Tanzania, U. Rep. of	82.6	83	1.4	0.1	(.)	44	376579	131
Thailand	13.6	1,860	5	3.7	0.9	29	111619	3375
Timor-Leste	..	..	..	..	..	34	..	..
Togo	83.3	120	4.9	0.3	(.)	9	6501	35
Tonga	..	340	..	1.1	(.)	6	10105	1
Trinidad and Tobago	0.4	4,422	1.3	31.9	0.1	51	322	79
Tunisia	7.8	1,205	7.7	2.3	0.1	3	2579	570
Turkey	10.5	1,904	5.7	3	1	13	33532	731
Turkmenistan	..	2,126	1.4	9.1	0.2	8	19782	..
Tuvalu	..	..	..	..	..	43	33	..
Uganda	93.4	61	..	0.1	(.)	21	63370	13
Ukraine	1	3,525	1.8	6.4	1.5	17	22468	1077
United Arab Emirates	..	14,215	..	25.1	0.3	4	..	423
United Kingdom	0.5	6,614	6.6	9.2	2.5	12	73768	..
United States	3.6	13,456	4.4	20.1	24.4	25	2413534	2805
Uruguay	35.4	2,456	10	1.2	(.)	7	725	102
Uzbekistan	0	2,008	0.8	4.8	0.5	5	20503	..
Vanuatu	..	208	..	0.4	(.)	37	194	..
Venezuela	2.8	3,484	2.4	4.3	0.7	56	659738	2546
Viet Nam	25.3	392	4.2	0.8	0.3	30	15773	243
Yemen	2.3	159	3.8	0.7	(.)	1	..	1023
Zambia	87.3	603	1.3	0.2	(.)	42	312253	..
Zimbabwe	66.2	981	..	1	0.1	49	57525	259

.. Data not available  
(.) Less than half the unit shown  
< Less than

High Human Development: Ranks 1-55  
Medium Human Development: Ranks 56-141  
Low Human Development: Ranks 142-177

**a.** Because data are based on national definitions of what constitutes a city or metropolitan area, cross-country comparisons should be made with caution.

**b.** Data refer to medium-variant projections.; **c.** Included in data for South Africa.; **d.** Population estimates include Taiwan, province of China.; **e.** Includes Monaco.; **f.** Includes San Marino.; **g.** Includes Svalbard and Jan Mayen Islands.; **h.** Data refer to the South African Customs Union, which includes Botswana, Lesotho, Namibia and Swaziland.; **i.** Includes Liechtenstein.

### Source:

**Column 8:** Calculated on the basis of data on traditional fuel consumption and total energy requirements from UN (United Nations). 2005. Correspondence on traditional fuel use. Department of Economic and Social Affairs, Statistics Division, New York. March.

**Column 9:** United Nations. 2005. Correspondence on energy consumption. Department of Economic and Social Affairs, Statistics Division, New York. March.

**Column 10:** World Bank. 2005. World Development Indicators 2005. CD-ROM. Washington, DC based on data from the International Energy Agency; aggregates calculated for the Human Development Report Office by the World Bank.

**Column 11:** United Nations. 2005. Millennium Indicators Database. Department of Economic and Social Affairs, Statistics Division.

[<http://millenniumindicators.un.org>]. Accessed March 2005; based on data from CDIAC.

**Column 12:** CDIAC (Carbon Dioxide Information Analysis Center). 2005. Data on carbon dioxide emissions. [[http://cdiac.esd.ornl.gov/trends/emis/em\\_cont.htm](http://cdiac.esd.ornl.gov/trends/emis/em_cont.htm)]. Accessed April 2005.

**Columns 13, 14 and 15:** United Nations. 2005. Millennium Indicators Database. Department of Economic and Social Affairs, Statistics Division, New York.

[<http://millenniumindicators.un.org>]. Accessed March 2005; based on a joint effort by the United Nations Children's Fund (UNICEF) and the World Health Organization.

# 1. INTERNATIONAL ENVIRONMENTAL CONVENTION RATIFICATIONS

	Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal 1989	Convention on Biological Diversity 1992	Cartagena Protocol on Biosafety 2000	Convention on International Trade in Endangered Species of Wild Fauna and Flora 1975	Stockholm Convention on Persistent Organic Pollutants 2001	United Nations Convention to Combat Desertification 1994
Afghanistan	○	●		●		●
Albania	●	●	●	●	●	●
Algeria	●	●	●	●	○	●
Andorra	●					●
Angola		●				●
Antigua and Barbuda	●	●	●	●	●	●
Argentina	●	●	○	●	●	●
Armenia	●	●	●		●	●
Australia	●	●		●	●	●
Austria	●	●	●	●	●	●
Azerbaijan	●	●	●	●	●	●
Bahamas	●	●	●	●	○	●
Bahrain	●	●			○	●
Bangladesh	●	●	●	●	○	●
Barbados	●	●	●	●	●	●
Belarus	●	●	●	●	●	●
Belgium	●	●	●	●	○	●
Belize	●	●	●	●	○	●
Benin	●	●	●	●	●	●
Bhutan	●	●	●	●		●
Bolivia	●	●	●	●	●	●
Bosnia and Herzegovina	●	●			○	●
Botswana	●	●	●	●	●	●
Brazil	●	●	●	●	●	●
Brunei Darussalam	●			●	○	●
Bulgaria	●	●	●	●	●	●
Burkina Faso	●	●	●	●	●	●
Burundi	●	●		●	○	●
Cambodia	●	●	●	●	○	●
Cameroon	●	●	●	●	○	●
Canada	●	●	○	●	●	●
Cape Verde	●	●				●
Central African Republic		●	○	●	○	●
Chad	●	●	○	●	●	●
Chile	●	●	○	●	●	●
China	●	●	○	●	●	●
Colombia	●	●	●	●	○	●
Comoros	●	●		●	○	●
Congo		●	○	●	○	●
Congo, Dem. Rep. of the	●	●	●	●	●	●
Costa Rica	●	●	○	●	○	●
Côte d'Ivoire	●	●		●	●	●
Croatia	●	●	●	●	○	●
Cuba	●	●	●	●	○	●
Cyprus	●	●	●	●	●	●
Czech Republic	●	●	●	●	●	●
Denmark	●	●	●	●	●	●
Djibouti	●	●	●	●	●	●
Dominica	●	●	●	●	●	●
Dominican Republic	●	●		●	○	●
Ecuador	●	●	●	●	●	●
Egypt	●	●	●	●	●	●
El Salvador	●	●	●	●	○	●

# 1. INTERNATIONAL ENVIRONMENTAL CONVENTION RATIFICATIONS

	Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal 1989	Convention on Biological Diversity 1992	Cartagena Protocol on Biosafety 2000	Convention on International Trade in Endangered Species of Wild Fauna and Flora 1975	Stockholm Convention on Persistent Organic Pollutants 2001	United Nations Convention to Combat Desertification 1994
Equatorial Guinea	●	●		●		●
Eritrea	●	●	●	●	●	●
Estonia	●	●	●	●		
Ethiopia	●	●	●	●	●	●
Fiji	●	●	●	●	●	
Finland	●	●	●	●	●	●
France	●	●	●	●	●	●
Gabon		●		●	○	●
Gambia	●	●	●	●	○	●
Georgia	●	●		●	○	●
Germany	●	●	●	●	●	●
Ghana	●	●	●	●	●	●
Greece	●	●	●	●	○	●
Grenada		●	●	●		●
Guatemala	●	●	●	●	○	●
Guinea	●	●	○	●	○	●
Guinea-Bissau	●	●		●	○	●
Guyana	●	●		●		●
Haiti	○	●	○		○	●
Honduras	●	●	○	●	●	●
Hong Kong, China (SAR)						
Hungary	●	●	●	●	○	●
Iceland	●	●	○	●	●	●
India	●	●	●	●	○	●
Indonesia	●	●	●	●	○	●
Iran, Islamic Rep. of	●	●	●	●	○	●
Iraq						
Ireland	●	●	●	●	○	●
Israel	●	●		●	○	●
Italy	●	●	●	●	○	●
Jamaica	●	●	○	●	○	●
Japan	●	●	●	●	●	●
Jordan	●	●	●	●	●	●
Kazakhstan	●	●		●	○	●
Kenya	●	●	●	●	●	●
Kiribati	●	●	●		●	●
Korea, Dem. Rep.		●	●		●	●
Korea, Rep. of	●	●	○	●	○	●
Kuwait	●	●		●	○	●
Kyrgyzstan	●	●			○	●
Lao People's Dem. Rep.		●	●	●	○	●
Latvia	●	●	●	●	●	●
Lebanon	●	●			●	●
Lesotho	●	●	●	●	●	●
Liberia	●	●	●	●	●	●
Libyan Arab Jamahiriya	●	●		●		●
Liechtenstein	●	●		●	●	●
Lithuania	●	●	●	●	○	●
Luxembourg	●	●	●	●	●	●
Macedonia, TFYR	●	●		●	●	●
Madagascar	●	●	●	●	○	●
Malawi	●	●	○	●	○	●
Malaysia	●	●	●	●	○	●

# 1. INTERNATIONAL ENVIRONMENTAL CONVENTION RATIFICATIONS

	Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal 1989	Convention on Biological Diversity 1992	Cartagena Protocol on Biosafety 2000	Convention on International Trade in Endangered Species of Wild Fauna and Flora 1975	Stockholm Convention on Persistent Organic Pollutants 2001	United Nations Convention to Combat Desertification 1994
Maldives	●	●	●			●
Mali	●	●	●	●	●	●
Malta	●	●		●	○	●
Marshall Islands	●	●	●		●	●
Mauritania	●	●		●	○	●
Mauritius	●	●	●	●	●	●
Mexico	●	●	●	●	●	●
Micronesia, Fed. Sts.	●	●			○	●
Moldova, Rep. of	●	●	●	●	●	●
Monaco	●	●	○	●	●	●
Mongolia	●	●	●	●	●	●
Morocco	●	●	○	●	●	●
Mozambique	●	●	●	●	○	●
Myanmar		●	○	●	●	●
Namibia	●	●	●	●	●	●
Nauru	●	●	●		●	●
Nepal	●	●	○	●	○	●
Netherlands	●	●	●	●	●	●
New Zealand	●	●	●	●	●	●
Nicaragua	●	●	●	●	○	●
Niger	●	●	●	●	○	●
Nigeria	●	●	●	●	●	●
Norway	●	●	●	●	●	●
Occupied Palestinian Territories						
Oman	●	●	●		●	●
Pakistan	●	●	○	●	○	●
Palau		●	●	●	○	●
Panama	●	●	●	●	●	●
Papua New Guinea	●	●		●	●	●
Paraguay	●	●	●	●	●	●
Peru	●	●	●	●	○	●
Philippines	●	●	○	●	●	●
Poland	●	●	●	●	○	●
Portugal	●	●	●	●	●	●
Qatar	●	●		●	●	●
Romania	●	●	●	●	●	●
Russian Federation	●	●		●	○	●
Rwanda	●	●	●	●	●	●
Saint Kitts and Nevis	●	●	●	●	●	●
Saint Lucia	●	●		●	●	●
Saint Vincent and the Grenadines	●	●	●	●		●
Samoa (Western)	●	●	●	●	●	●
San Marino		●				●
São Tomé and Príncipe		●		●	○	●
Saudi Arabia	●	●		●	○	●
Senegal	●	●	●	●	●	●
Serbia and Montenegro	●	●	○		○	
Seychelles	●	●	●	●	○	●
Sierra Leone		●		●	●	●
Singapore	●	●		●	●	●
Slovakia	●	●	●	●	●	●
Slovenia	●	●	●	●	●	●
Solomon Islands		●	●		●	●



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Somalia				●		●
South Africa	●	●	●	●	●	●
Spain	●	●	●	●	●	●
Sri Lanka	●	●	●	●	○	●
Sudan		●		●	○	●
Suriname		●		●	○	●
Swaziland		●		●		●
Sweden	●	●	●	●	●	●
Switzerland	●	●	●	●	●	●
Syrian Arab Republic	●	●	●	●	○	●
Tajikistan		●	●		○	●
Tanzania, U. Rep. of	●	●	●	●	●	●
Thailand	●	●		●	●	●
Timor-Leste						●
Togo	●	●	●	●	●	●
Tonga		●	●		○	●
Trinidad and Tobago	●	●	●	●	●	●
Tunisia	●	●	●	●	●	●
Turkey	●	●	●	●	○	●
Turkmenistan	●	●				●
Tuvalu		●			●	●
Uganda	●	●	●	●	●	●
Ukraine	●	●	●	●	○	●
United Arab Emirates	●	●		●	●	●
United Kingdom	●	●	●	●	●	●
United States	○	○		●	○	●
Uruguay	●	●	○	●	●	●
Uzbekistan	●	●		●		●
Vanuatu		●		●	○	●
Venezuela	●	●	●	●	●	●
Viet Nam	●	●	●	●	●	●
Yemen	●	●		●	●	●
Zambia	●	●	●	●	○	●
Zimbabwe		●	●	●	○	●
<b>Total states parties<sup>a</sup></b>	<b>164</b>	<b>193</b>	<b>118</b>	<b>167</b>	<b>100</b>	<b>190</b>
<b>Signatures not yet followed by ratification</b>	<b>3</b>	<b>1</b>	<b>24</b>	<b>0</b>	<b>74</b>	<b>0</b>

● Ratification, accession or succession.

○ Signature not yet followed by ratification.

**Note:** Information is as of 30 June 2005.

**a.** Refers to ratification, accession or succession.

**Source:**

Column 1-3: United Nations. 2005. "Multilateral Treaties Deposited with the Secretary-General" [<http://untreaty.un.org>]. Accessed June 2005.

Column 4: UNEP (United Nations Environment Programme). 2005. "Convention in International Trade in Endangered Species of Wild Fauna and Flora" [<http://www.cites.org/>]. Accessed June 2005.

Columns 5: United Nations. 2005. "Multilateral Treaties Deposited with the Secretary-General" [<http://untreaty.un.org>]. Accessed June 2005.

## 2. INTERNATIONAL ENVIRONMENTAL CONVENTION RATIFICATIONS

	United Nations Convention on Law of the Sea 1982	United Nations Framework Convention on Climate Change 1992	Kyoto Protocol to the Framework Convention on Climate Change 1997	Vienna Convention for the Protection of the Ozone Layer 1985	Montreal Protocol on Substances that Deplete the Ozone Layer 1987	Page #
Afghanistan	○	●		●	●	160
Albania	●	●	●	●	●	214
Algeria	●	●	●	●	●	120
Andorra						
Angola	●	●		●	●	30
Antigua and Barbuda	●	●	●	●	●	
Argentina	●	●	●	●	●	272
Armenia	●	●	●	●	●	216
Australia	●	●	○	●	●	
Austria	●	●	●	●	●	
Azerbaijan		●	●	●	●	218
Bahamas	●	●	●	●	●	
Bahrain	●	●		●	●	122
Bangladesh	●	●	●	●	●	162
Barbados	●	●	●	●	●	274
Belarus	○	●		●	●	220
Belgium	●	●	●	●	●	
Belize	●	●	●	●	●	276
Benin	●	●	●	●	●	32
Bhutan	○	●	●	●	●	164
Bolivia	●	●	●	●	●	278
Bosnia and Herzegovina	●	●		●	●	222
Botswana	●	●	●	●	●	36
Brazil	●	●	●	●	●	280
Brunei Darussalam	●			●	●	
Bulgaria	●	●	●	●	●	224
Burkina Faso	●	●	●	●	●	38
Burundi	○	●	●	●	●	40
Cambodia	○	●	●	●	●	166
Cameroon	●	●	●	●	●	42
Canada	●	●	●	●	●	
Cape Verde	●	●		●	●	44
Central African Republic	○	●		●	●	46
Chad	○	●		●	●	48
Chile	●	●	●	●	●	282
China	●	●	●	●	●	168
Colombia	○	●	●	●	●	284
Comoros	●	●		●	●	50
Congo	○	●		●	●	54
Congo, Dem. Rep. of the	●	●	●	●	●	52
Costa Rica	●	●	●	●	●	286
Côte d'Ivoire	●	●		●	●	56
Croatia	●	●	○	●	●	226
Cuba	●	●	●	●	●	288
Cyprus	●	●	●	●	●	228
Czech Republic	●	●	●	●	●	230
Denmark	●	●	●	●	●	
Djibouti	●	●	●	●	●	124
Dominica	●	●	●	●	●	
Dominican Republic	○	●	●	●	●	290
Ecuador		●	●	●	●	292
Egypt	●	●	●	●	●	126
El Salvador	○	●	●	●	●	294

## 2. INTERNATIONAL ENVIRONMENTAL CONVENTION RATIFICATIONS

	United Nations Convention on Law of the Sea 1982	United Nations Framework Convention on Climate Change 1992	Kyoto Protocol to the Framework Convention on Climate Change 1997	Vienna Convention for the Protection of the Ozone Layer 1985	Montreal Protocol on Substances that Deplete the Ozone Layer 1987	Page #
Equatorial Guinea	●	●	●			
Eritrea		●		●	●	58
Estonia		●	●	●	●	
Ethiopia	○	●	●	●	●	60
Fiji	●	●	●	●	●	170
Finland	●	●	●	●	●	
France	●	●	●	●	●	
Gabon	●	●		●	●	60
Gambia	●	●	●	●	●	62
Georgia	●	●	●	●	●	232
Germany	●	●	●	●	●	
Ghana	●	●	●	●	●	64
Greece	●	●	●	●	●	
Grenada	●	●	●	●	●	
Guatemala	●	●	●	●	●	296
Guinea	●	●	●	●	●	66
Guinea-Bissau	●	●		●	●	68
Guyana	●	●	●	●	●	298
Haiti	●	●		●	●	300
Honduras	●	●	●	●	●	302
Hong Kong, China (SAR)						
Hungary	●	●	●	●	●	234
Iceland	●	●	●	●	●	
India	●	●	●	●	●	172
Indonesia	●	●	●	●	●	174
Iran, Islamic Rep. of	○	●		●	●	176
Iraq	●					128
Ireland	●	●	●	●	●	
Israel		●	●	●	●	
Italy	●	●	●	●	●	
Jamaica	●	●	●	●	●	304
Japan	●	●	●	●	●	
Jordan	●	●	●	●	●	130
Kazakhstan		●	○	●	●	236
Kenya	●	●	●	●	●	70
Kiribati	●	●	●	●	●	
Korea, Dem. Rep.	○	●		●	●	178
Korea, Rep. of	●	●	●	●	●	180
Kuwait	●	●	●	●	●	132
Kyrgyzstan		●	●	●	●	240
Lao People's Dem. Rep.	●	●	●	●	●	182
Latvia	●	●	●	●	●	242
Lebanon	●	●		●	●	134
Lesotho	○	●	●	●	●	72
Liberia	○	●	●	●	●	74
Libyan Arab Jamahiriya	○	●		●	●	136
Liechtenstein	○	●	●	●	●	
Lithuania	●	●	●	●	●	244
Luxembourg	●	●	●	●	●	
Macedonia, TFYR	●			●	●	246
Madagascar	●	●	●	●	●	76
Malawi	○	●	●	●	●	78
Malaysia	●	●	●	●	●	184

## 2. INTERNATIONAL ENVIRONMENTAL CONVENTION RATIFICATIONS

	United Nations Convention on Law of the Sea 1982	United Nations Framework Convention on Climate Change 1992	Kyoto Protocol to the Framework Convention on Climate Change 1997	Vienna Convention for the Protection of the Ozone Layer 1985	Montreal Protocol on Substances that Deplete the Ozone Layer 1987	Page #
Maldives	●	●	●	●	●	186
Mali	●	●	●	●	●	80
Malta	●	●	●	●	●	230
Marshall Islands	●	●	●	●	●	
Mauritania	●	●		●	●	82
Mauritius	●	●	●	●	●	84
Mexico	●	●	●	●	●	306
Micronesia, Fed. Sts.	●	●	●	●	●	
Moldova, Rep. of		●	●	●	●	248
Monaco	●	●	○	●	●	
Mongolia	●	●	●	●	●	188
Morocco	○	●	●	●	●	138
Mozambique	●	●	●	●	●	86
Myanmar	●	●	●	●	●	190
Namibia	●	●	●	●	●	88
Nauru	●	●	●	●	●	
Nepal	●	●		●	●	192
Netherlands	●	●	●	●	●	
New Zealand	●	●	●	●	●	
Nicaragua	●	●	●	●	●	308
Niger	○	●	●	●	●	90
Nigeria	●	●	●	●	●	91
Norway	●	●	●	●	●	
Occupied Palestinian Territories						140
Oman	●	●	●	●	●	
Pakistan	●	●	●	●	●	194
Palau	●	●	●	●	●	
Panama	●	●	●	●	●	310
Papua New Guinea	●	●	●	●	●	196
Paraguay	●	●	●	●	●	312
Peru		●	●	●	●	314
Philippines	●	●	●	●	●	198
Poland	●	●	●	●	●	250
Portugal	●	●	●	●	●	
Qatar	●	●	●	●	●	
Romania	●	●	●	●	●	252
Russian Federation	●	●	●	●	●	254
Rwanda	○	●	●	●	●	94
Saint Kitts and Nevis	●	●		●	●	
Saint Lucia	●	●	●	●	●	
Saint Vincent and the Grenadines	●	●	●	●	●	
Samoa (Western)	●	●	●	●	●	200
San Marino		●				
São Tomé and Príncipe	●	●		●	●	96
Saudi Arabia	●	●	●	●	●	142
Senegal	●	●	●	●	●	98
Serbia and Montenegro	●	●	●	●	●	256
Seychelles	●	●	●	●	●	82
Sierra Leone	●	●		●	●	100
Singapore	●	●		●	●	
Slovakia	●	●	●	●	●	230
Slovenia	●	●	●	●	●	230
Solomon Islands	●	●	●	●	●	



## 2. INTERNATIONAL ENVIRONMENTAL CONVENTION RATIFICATIONS

	United Nations Convention on Law of the Sea 1982	United Nations Framework Convention on Climate Change 1992	Kyoto Protocol to the Framework Convention on Climate Change 1997	Vienna Convention for the Protection of the Ozone Layer 1985	Montreal Protocol on Substances that Deplete the Ozone Layer 1987	Page #
Somalia	●			●	●	144
South Africa	●	●	●	●	●	102
Spain	●	●	●	●	●	
Sri Lanka	●	●	●	●	●	202
Sudan	●	●	●	●	●	146
Suriname	●	●		●	●	316
Swaziland	○	●		●	●	104
Sweden	●	●	●	●	●	
Switzerland	○	●	●	●	●	
Syrian Arab Republic		●		●	●	148
Tajikistan		●		●	●	258
Tanzania, U. Rep. of	●	●	●	●	●	106
Thailand	○	●	●	●	●	204
Timor-Leste						206
Togo	●	●	●	●	●	108
Tonga	●	●		●	●	
Trinidad and Tobago	●	●	●	●	●	316
Tunisia	●	●	●	●	●	150
Turkey		●		●	●	260
Turkmenistan		●	●	●	●	262
Tuvalu	●	●	●	●	●	
Uganda	●	●	●	●	●	110
Ukraine	●	●	●	●	●	264
United Arab Emirates	○	●	●	●	●	152
United Kingdom	●	●	●	●	●	
United States		●	○	●	●	
Uruguay	●	●	●	●	●	318
Uzbekistan		●	●	●	●	266
Vanuatu	●	●	●	●	●	
Venezuela		●		●	●	320
Viet Nam	●	●	●	●	●	208
Yemen	●	●	●	●	●	154
Zambia	●	●	○	●	●	112
Zimbabwe	●	●		●	●	114
<b>Total states parties<sup>a</sup></b>	<b>147</b>	<b>189</b>	<b>147</b>	<b>188</b>	<b>188</b>	
<b>Signatures not yet followed by ratification</b>	<b>27</b>	<b>0</b>	<b>6</b>	<b>0</b>	<b>0</b>	

● Ratification, accession or succession.

○ Signature not yet followed by ratification.

**Note:** Information is as of 30 June 2005.

**a.** Refers to ratification, accession or succession.

**Source:**

Columns 6-11: United Nations. 2005. "Multilateral Treaties Deposited with the Secretary-General" [<http://untreaty.un.org>]. Accessed June 2005.

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- UNDP's work in the field of energy, environment and sustainable development has spanned many decades working hand in hand with its global and local partners.
- At the national level, Country Offices are delivering policy-oriented solutions to address energy, environmental and sustainable development issues based on country demands and in consultation with a broad base of local stakeholders.
- Country Offices act as system integrators by programming resources from multiple external funds to mainstream environment into national policy frameworks. This business model has been pioneered by UNDP through effective partnerships with the Global Environment Facility (GEF) and the Montreal Protocol (MP).
- Scaling-up action to enhance the contribution of environmental management and access to energy services to poverty reduction, sustainable growth and achievement of the MDGs, within the framework of country-led MDG-based national development strategies is the overall goal of the Energy and Environment Practice in the coming few years.



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