



## Clean energy and environmental stewardship

The scope of  
UNIDO-GEF cooperation



UNITED NATIONS  
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Intake of small hydropower plant in Indonesia.



Collecting stack gas samples at a waste incinerator in Viet Nam.



Philippines: stockpiles of capacitors for disposal.

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GLOBAL ENVIRONMENT FACILITY  
INVESTING IN OUR PLANET





## Foreword

The GEF is building its cooperation with UNIDO on the Organization's comparative advantage in its capability to link issues related to energy efficiency, renewable energy, chemicals, international waters, and sustainable development within the context of industrial activities.

A specialized UN agency, the United Nations Industrial Development Organization (UNIDO) works to promote and accelerate sustainable industrial development in developing countries and countries with economies in transition. Energy and the environment constitute one of three thematic areas in which UNIDO classifies its activities, the others being poverty reduction through productive activities, and trade capacity building.

Established in 1991, the Global Environment Facility (GEF) unites 182 member governments — in partnership with international institutions, civil society organizations, and the private sector — in an effort to address global environmental issues. The largest provider of funds for environmental initiatives, the GEF extends grants to developing countries and countries with economies in transition for projects related to biodiversity, climate change, chemicals, international waters, land degradation, and ozone-layer depletion. Since its establishment, the GEF has allocated US\$10 billion, supplemented by over US\$51 billion in co-financing, to more than 2,700 projects in 165 countries.

UNIDO's cooperation with the GEF dates back to the 1990s when the Organization acted as an Executing Agency of GEF projects implemented by the original GEF Agencies, the United Nations Development Programme (UNDP), the United Nations Environment Programme (UNEP), and the World Bank, and related to climate change, chemicals, and international waters. In 2000, the GEF Council granted UNIDO direct access to its resources for the preparation and implementation of projects related to persistent organic pollutants (POPs). As a result, UNIDO developed a strong project portfolio covering a wide range of activities, including national implementation plans, assessment capacity building, and best available technologies/best environmental practices programmes, to reduce or eliminate POPs emissions and wastes.

In 2006, the GEF Council acknowledged UNIDO's comparative advantage in its capability to link issues related to energy efficiency, renewable energy, chemicals, international waters, and sustainable development within the context of industrial activities, and granted the Organization direct access to GEF Trust Fund resources for projects related to climate change, biodiversity, international waters, and ozone-layer depletion. This decision provided UNIDO with a unique opportunity to enhance the synergies and impact of its GEF project portfolio.

Today, UNIDO's Energy and Climate Change Branch carries out GEF-supported projects under the climate change mitigation cluster that focus on: (i) providing access of the poor to rural energy for economic use, with emphasis on renewable energy; (ii) increasing productivity and competitiveness by improving industrial energy efficiency; and (iii) reducing emissions of greenhouse gases through capacity building projects designed in conformity with the United Nations Framework Convention on Climate Change.

The Environmental Management Branch continues to expand its GEF portfolio related to chemicals and international waters by providing technical and capacity building support in: (i) cleaner and sustainable production; (ii) POPs management and disposal; and (iii) water management (with emphasis on water resource utilization, sustainable use of trans-boundary river basins, wetlands, coastal zones and large marine ecosystems, and recovery and sustainable management of industrial fisheries).

Another significant component of the UNIDO-GEF portfolio is the work of the Montreal Protocol Branch, which provides technical assistance and institutional support in the management and destruction of ozone-depleting substances (ODS) in countries with economies in transition.

The UNIDO-GEF portfolio in its entirety benefits from the Organization's ability to engage small and medium-size enterprises in its projects, as well as from projects which address multiple issues, such as initiatives that promote synergies between measures related to climate change and efforts to phase out harmful chemicals. UNIDO is also seeking to link its GEF projects with the Organization's other two priorities – poverty reduction through productive activities, and trade capacity building – where its GEF-funded initiatives regarding energy and the environment have the potential of positive spillover effects in the pursuit of the overall objectives of poverty alleviation and improvement of the trade performance of developing countries.

## A unique player in the GEF partnership

Its ability to create synergies between clean-energy endeavours, green industry and efforts to address environmental concerns has allowed UNIDO to secure a special position within the GEF partnership of international agencies.

To help developing countries and countries with economies in transition cope with environmental challenges and adjust to climate change, UNIDO assists industries in adopting cleaner, resource- and energy-efficient, and low-carbon patterns of production. In this endeavour, the Organization focuses on two strategic areas: (i) cleaner and more efficient use of resources and energy in industrial operations; and (ii) productive activities (particularly in rural areas) based on renewable sources of energy. Where industry is well established, UNIDO provides technical assistance that aims to make industrial sectors and enterprises more sustainable through efficiency upgrades, system optimization approaches, and improvements in energy and environmental management.

Capitalizing on its experience and comparative advantages as a specialized agency of the United Nations, UNIDO is playing a major role in the design and implementation of GEF projects related to climate change, environmentally hazardous chemicals, and international waters. The Organization supports over 90 countries in their efforts to achieve sustainable industrial development in conformity with the objectives expressed in the GEF mandate. It helps governments develop regulatory, institutional and financial mechanisms which promote a sustainable course in the use of resources in general and energy in particular, and helps industries and industrial enterprises to secure their viability by adopting sound technology solutions and best production practices.

In addition to the GEF-funded projects that are solely implemented by UNIDO, the Organization frequently carries out interventions in cooperation with other GEF agencies, including the European Bank for Reconstruction and Development (EBRD), the Food and Agriculture Organization of the United Nations (FAO), the International Fund for Agricultural Development (IFAD), UNEP, UNDP, and the World Bank.

One such joint initiative undertaken by UNIDO and UNEP assists African least developed countries in integrating into regional programmes their activities related to the Stockholm Convention on Persistent Organic Pollutants. The GEF has been a strong supporter of UNIDO's special programmes which support African least developed countries in their efforts to comply with Convention requirements.

The growing size and complexity of the UNIDO-GEF project portfolio require close coordination. UNIDO's GEF Coordination Office at UNIDO Headquarters in Vienna, Austria, and the Managing Director of Programme Development and Technical Cooperation acting as the UNIDO focal point of the GEF Secretariat ensure effective communication and consultations. The coordination staff takes part in GEF Council and Replenishment meetings, seminars and workshops, and provides reports and feedback to the UNIDO management and technical branches. It is also engaged in project cycle management and the quality assurance of GEF proposals as part of UNIDO's GEF Peer Review Body.



Constant interaction between UNIDO Director General Yong Li (at right in photo with GEF Deputy CEO André Laperrière) and GEF Secretariat senior management ensures a strong commitment towards further expanding the scope of cooperation between the two organizations. Both UNIDO and the GEF agree on the importance of partnerships within the scope of UNIDO-GEF projects in order to scale up project interventions and leverage greater impact beyond project lifetimes. In this respect, the range of relevant partners for UNIDO-GEF projects spans from multilateral and regional development banks to associations, chambers of commerce, as well as the private sector.

UNIDO frequently joins the GEF in global forum activities and participates with high-level delegations in major GEF conferences and other events. UNIDO was also a prominent participant in the GEF 20th Anniversary celebrations held in Washington, DC, in May 2011. The Organization attended the coinciding GEF Council meeting and prepared a special edition of *UNIDO in Russia* magazine dedicated to the GEF's anniversary. The magazine and other UNIDO-GEF publications and videos were showcased at the UNIDO information booth during the GEF Gala event.

One of the recent highlights of the UNIDO-GEF cooperation was the launch of the GEF-funded Cleantech Programme in India. The GEF-UNIDO Global Cleantech Programme for SMEs focuses on enhancing emerging clean technology start-ups as well as



the local entrepreneurial ecosystem and policy framework. First implemented in South Africa, the GEF-UNIDO programme has expanded with approved projects in Armenia, India, Malaysia, Pakistan, South Africa and Turkey during 2013.

Cleantech employs a competition-based approach to identify the most promising entrepreneurs across a country. A local business acceleration programme supports, promotes and “de-risks” the participating companies and connects them to potential investors, customers, and partners. An integral part of this programme is the development of the local institutional capacity. The initial GEF funding will be for three years with the intention of holding two to three cycles of the annual Cleantech Platform. The aim is for each national Cleantech Platform to be fully operational and sustainable with support from the public sector and particularly private sector co-sponsors.

In joining the India Cleantech launch, Naoko Ishii, CEO and Chairperson of the GEF (photo), highlighted that: *“In India the public and private sectors have recognized the need for sustainable growth. With this Cleantech Programme, the public sector is partnering with businesses to create a platform to promote clean technology, support innovation, and provide entrepreneurs with the skills and access to finance they need to succeed.”*



The GEF-UNIDO India Cleantech Programme is co-financed by the Government of India’s Ministry of Micro, Small and Medium Enterprises (MSME) and will be executed by the Federation of Indian Chambers of Commerce and Industry (FICCI). The MSME Secretary and the FICCI President assured their full support and applauded the project stating that it can play a catalytic role in channeling innovative solutions for the greening of SMEs in India.

UNIDO also ensures the involvement of the GEF Secretariat in the Organization’s global forum activities. Following a successful Vienna Energy Forum in 2011, which had been attended by the GEF, the 2013 Forum focused on the energy dimension captured in the Rio+20 outcome document “The Future We Want” and facilitated a discussion on how energy should be integrated into the post-2015 global development framework. Naoko Ishii, the CEO and Chairperson of the GEF, contributed as a panelist in this event which brought together around 1,500 participants, including heads of state, ministers, energy experts, and representatives of multilateral and non-governmental organizations, academia, civil society and the private sector.



## Mitigating the effects of climate change

The Energy and Climate Change Branch of UNIDO, with its integrated approach to industrial energy efficiency, renewable energy, and technology transfer, is uniquely structured and equipped to implement GEF projects related to climate change mitigation. By promoting sound energy management standards and the adoption of renewable energy technologies, UNIDO-GEF climate change projects support patterns of energy use conducive to reductions in greenhouse gas emissions and advance environmental sustainability of industries. Moreover, they increase access to energy in developing countries by promoting renewable energy solutions, primarily in rural areas, which are fundamental drivers in generating value-added products and reducing poverty.

UNIDO is the only GEF agency with a specialized mandate to develop energy solutions for industrial applications. The Organization helps upgrade both the energy efficiency and the environmental sustainability of industrial operations, which lead to energy savings and gains in competitiveness from lower energy costs, as well as promote a decreased reliance on fossil fuels, which in turn helps reduce the impact of climate change.

### **Renewable energy**

Access to clean and affordable energy is one of the main prerequisites of sustainable economic and social development. To foster sustainable patterns of energy generation and consumption, UNIDO promotes the use of innovative clean technologies based on locally available renewable resources such as small-scale hydropower, biomass and biogas, solar energy, and wind power. To this effect, the Organization carries out demonstration projects, assists policy makers in establishing a regulatory framework favorable to the application of renewable energy technologies, and renders capacity building services. UNIDO-GEF projects in this field increase the access of the rural poor to modern and affordable energy services to facilitate income generation activities; at the same time, they reduce dependency on fossil fuels and thereby decrease carbon emissions.





The GEF energy component of the *Strategic Programme for West Africa (SPWA)* is a challenge that holds a far-reaching development promise. With both national and regional projects, the Programme covers all members of the Economic Community of West African States (ECOWAS) plus Burundi, Chad and Mauritania – a total of 18 countries. In addition to performing its role as lead coordinating agency for the Programme in its entirety, UNIDO will promote concrete renewable energy solutions by helping to set up mini-grids in eight countries (Chad, Côte d'Ivoire, Cape Verde, Gambia, Guinea, Liberia, Nigeria, and Sierra Leone), and will assist Burkina Faso in improving industrial energy efficiency. With hydropower and bioenergy as core technologies, the mini-grid systems will significantly expand income generation opportunities in rural areas and will encourage a greater involvement of the private sector in energy generation. In the nine countries mentioned above, UNIDO has secured political ownership by national governments and commitments from key stakeholders.

To promote coherence, integration and knowledge management within the framework of SPWA, UNIDO is also implementing a regional project in collaboration with the ECOWAS Centre for Renewable Energy and Energy Efficiency to serve the entire region. The Organization has leveraged US\$68 million in co-financing for the US\$14-million GEF grants. Of a total of ten projects, three are already operational while the other seven will soon commence implementation.



## **Renewable energy generates development opportunities in rural areas**

**In Zambia,** UNIDO is executing in collaboration with UNEP a GEF-funded project that aims to increase the rural electrification rate in Zambia, a least developed country with only 3% electricity coverage in 2011. *Renewable energy-based electricity generation for isolated mini-grids in Zambia* is a good example of the feasibility of harnessing renewable sources of energy to spread the benefits of electrification to off-grid rural areas. The US\$3-million GEF project grant secured an almost double amount in co-financing from Zambian public and private utilities and UNDP to demonstrate the viability of renewable energy mini-grids under various investment and business management models.

Three pilot mini-grids using different renewable sources of energy have been designed and installed in different isolated locations: A 1 MW small hydropower system at Shiwang'andu in the Chinsali District, which benefited from strong support from Zambia's utility company ZESCO and is a good example of South-South cooperation (with China's ICSHP); a 60 kW solar PV mini-grid at Mpanta; and a 500 kW biomass gasification system to be developed in collaboration with the private sector (Copperbelt Energy Company) with a 25 kW demonstration plant at Ndola. To secure the sustainability and replicability of this initiative, the project has upgraded the business and technical know-how of key stakeholders such as financial institutions, entrepreneurs and project developers.

**In Cuba,** environmentally sound biomass and wind technologies have introduced sustainable energy to Cuba's Isla de la Juventud. In this project, UNIDO has worked with local partners to develop an innovative financial mechanism and viable business models to encourage investments in renewable energy technologies in Cuba.

The project has installed a wind farm of 1.46 MW using hurricane-proof wind turbines; a 50 kW demonstration biomass gasifier; and two biomass boilers (for heat production) for the meat industry. Furthermore, a 500 kW biomass gasifier is under construction, and a large transfer of biomass gasification technology is being carried out. The policy and regulatory framework related to renewable energy technologies and their commercial application has also been strengthened in Cuba at both local and national level.

**Energy efficiency solutions help the Russian Federation  
combat industrial emissions of harmful gases**

*Market transformation programme on energy efficiency in greenhouse gas-intensive industries in the Russian Federation*, a project currently under implementation, has been hailed as a highlight of inter-agency cooperation. UNIDO and the European Bank for Reconstruction and Development achieved an effective partnership in dealing with the challenge of designing energy efficiency solutions for highly energy-intensive Russian industries.

Ten large companies and fifty small and medium-size enterprises are receiving training and technical support that will ultimately help them set up full-scale energy management systems. It is expected that the project will showcase the cost effectiveness and competitive advantage of such measures thereby encouraging other companies to follow suit. Such a development could well become the basis of a national energy standard and future voluntary agreements.

The project benefits from the Bank's financing experience in the Russian Federation, which helps ensure the effectiveness of technical assistance provided by UNIDO. Moreover, combining this joint endeavor with additional financing opportunities for investments in energy efficiency will considerably increase the project's impact. These include Russia Sustainable Energy credit lines, carbon finance, or specialized loan or equity facilities.

## **Energy efficiency**

Improving energy efficiency in industry is one of the most cost-effective ways in which developing countries and countries with economies in transition can meet their increasing energy demand and at the same time loosen the link between economic growth and environmental degradation. In its GEF-funded projects, UNIDO addresses in a comprehensive manner the barriers to continuous improvement of industrial energy efficiency. Drawing on its expertise in sustainable industrial development, the Organization provides policy advice, capacity building and investment assistance services rooted in the two core concepts of its approach to energy efficiency: (i) energy system optimization, and (ii) energy management standards.

A recently launched GEF-funded UNIDO project will help develop a market environment for energy efficiencies as well as renewable-energy technologies in 12 selected clusters of micro-, small and medium-size enterprises in five of India's energy-intensive industrial sectors: ceramics, hand-tool production, foundries, brass production, and dairy products. The project objective is to improve the productivity and competitiveness of the participating enterprises as well as to reduce overall carbon emissions and generally improve the quality of the local environment.

## **Technology transfer**

Technology transfer plays an increasingly crucial role in the global response to the challenges of climate change. The transfer of environmentally sound technologies as a key sustainable development factor is embedded in the very fabric of the United Nations Framework Convention on Climate Change. As part of the GEF's response to the Convention's guidance, the Poznan Strategic Programme on Technology Transfer aims to help developing countries acquire environmentally sound technologies. The Programme established three modalities of accessing GEF support: (i) assessments of technology needs; (ii) pilot priority technology projects based on needs assessments; and (iii) dissemination of GEF experience, and demonstrations of environmentally sound technologies.

In March 2009, the GEF issued a call for proposals of technology transfer projects emphasizing several key requirements such as consistency of selected technologies with national priorities, innovative character of technologies and transfer mechanisms, broad-based leveraging (investments from both the public and the private sector), and a preference for South-South transfers and international projects.

Fourteen proposals were selected out of 39 submissions; they cover 16 countries and involve six GEF partner agencies. Five of the eight projects proposed by UNIDO were approved, four of which are currently commencing implementation.

### **Retooling waste disposal centres in China**

*Environmentally sustainable management of medical wastes in China* is a five-year project which aims to reduce and ultimately eliminate the release of unintentionally produced POPs and other environmentally harmful chemicals. It is China's first project that explores the application of best available techniques/best environmental practices methodology.

Demonstrations carried out at 20 medical institutions in six municipalities cover such aspects as good procurement practices, waste segregation at source, waste reduction/minimization, reuse and recycling, intermediate storage, transportation, traceability, and staff training. Six disposal centres have been selected for demonstrations of best available techniques of medical waste disposal, including pollution monitoring. These pilot interventions also support the development of specifications for the engineering design of environmentally friendly disposal facilities. The project is already changing China's technological orientation in dealing with medical waste. While, according to initial planning, all of the country's 277 waste disposal centres were to use incineration technology, 80 facilities already resort to non-incineration solutions.



## A campaign against persistent organic pollutants



PCB waste management in the Philippines.

UNIDO has played a leading role in the implementation of the Stockholm Convention on Persistent Organic Pollutants since the very beginning of this important campaign. The projects undertaken to date in this area represent more than half of the UNIDO-GEF portfolio in terms of project resources. One major category of GEF-funded projects and other activities carried out by the Organization consists of assistance in the development of national implementation plans. Based on each country's specific institutional, policy and regulatory structures, this support helps the recipient states elaborate viable means of fulfilling their obligations under the Stockholm Convention.

Once the national plans are adopted, their actual implementation benefits from assistance provided through UNIDO-GEF projects in five main areas: (i) polychlorinated biphenyl (PCB) management and disposal; (ii) contaminated sites; (iii) best available techniques/best environmental practices; (iv) pesticides; and (v) non-combustion technologies.

**PCB management and disposal** are a priority objective of many national implementation plans. UNIDO-GEF projects help to enhance regulatory frameworks and to upgrade institutional capabilities related to the management of PCB equipment and waste. This entails assistance to local laboratories, inspections at contaminated sites, and demonstrations of sound PCB management practices. Activities aiming to raise public awareness are a major component of all PCB projects.

**Contaminated sites.** Following the Stockholm Convention guidance regarding the development of appropriate strategies for identifying sites contaminated by specific chemicals, UNIDO-GEF projects assist countries in adopting effective site selection methodologies and in the application of remediation technologies. One such project implemented in Ghana and Nigeria is establishing an information management system and a toolkit for the management of POP-contaminated sites.



Russian trainees practice environmentally safe maintenance of cooling systems.

**Pesticides.** UNIDO and UNDP helped establish the Regional Network on Safe Pesticide Production and Information for Asia and the Pacific to support POPs elimination efforts. The Network consists of 16 countries and, although it is not directly funded by the GEF, it facilitates the development of projects focused on environmentally sound management and disposal of obsolete pesticides. One recent example includes a joint GEF-funded UNEP-UNIDO project which focuses on the development and promotion of non-POPs alternatives to dichlorodiphenyltrichloroethane (DDT).

**Best available techniques (BAT) and best environmental practices (BEP)** are the main tools used to reduce and, if feasible, eliminate unintentionally produced POPs. One GEF-funded project currently being prepared by UNIDO will apply these tools at selected facilities in Viet Nam's pulp and paper, cement, waste incineration, and iron and steel industries. Launched by UNIDO in 2007, a BAT/BEP Forum for 12 countries in East and South East Asia developed a regional project, subsequently approved by the GEF, to carry out demonstrations at utility services and industrial facilities (boilers) using fossil fuels. Building upon this successful experience, the Organization set up between 2009 and 2011 five similar fora in Central and Eastern Europe, the Caucasus and Central Asia; the Persian Gulf region; and three African regions.

**Non-combustion technologies.** UNIDO technical expertise and GEF funding support have played a catalytic role in exploring the potential of non-combustion technologies and in their application in several countries. A global programme was established to demonstrate the deployment of such technologies as a viable means of eliminating obsolete POPs stockpiles and waste. Within the programme framework, UNIDO-GEF projects are under way in the Philippines, China and Slovakia, and initiatives for several African countries are currently on the drawing board.

## Phasing out ozone-depleting substances

Since 1992, UNIDO has been active in 87 countries as implementing agency of the Montreal Protocol carrying out projects that aim to phase out ozone-depleting substances (ODS) in industry, agriculture, and the refrigeration sector. While most of these interventions have been financed by the Multilateral Fund for the Implementation of the Montreal Protocol, UNIDO has also developed a GEF-funded project portfolio for countries with economies in transition.

The Organization's industrial expertise has allowed it to identify and promote the widespread use of natural alternatives to ozone-depleting chemicals. These natural substitutes consist of various hydrocarbons, liquid carbon dioxide, water and steam and have been applied in refrigeration and foam manufacturing as well as in certain agricultural sectors as pest control agents.

### **Advanced refrigeration and air-conditioning technology to increase energy efficiency and reduce ODS emissions in the Russian Federation**

An innovative technology transfer project to be implemented by UNIDO under the Poznan Programme addresses two major environmental issues: the phasing out of ozone-depleting substances, and energy efficiency in the refrigeration and air-conditioning sector. *Phase out of HCFCs and promotion of HFC-free energy efficient refrigeration and air-conditioning systems in the Russian Federation through technology transfer* will eliminate 600 metric tons of hydrochlorofluorocarbons to help the Russian Federation meet its 2015 targets under the Montreal Protocol. Since HCFCs are strong greenhouse gases, there will also be a direct reduction in greenhouse-gas emissions equivalent to 15.6 million tons of CO<sub>2</sub>. Moreover, by providing advanced energy efficiency technology, the project will improve the performance of refrigeration and air-conditioning systems, which will yield a further reduction in greenhouse-gas emissions equivalent to approximately 10 million tons of CO<sub>2</sub> over five years.





## Protecting water resources for future generations

UNIDO facilitates transfers of the best available technologies and practices to improve water usage efficiency in industrial operations and prevent the discharge of industrial effluents into international waters. UNIDO-GEF projects help countries manage collectively their trans-boundary inland basins and marine areas to their mutual benefit.

*Integrated assessment and management of the Gulf of Mexico large marine ecosystem* is an eloquent example. The US\$100-million ongoing project implemented by UNIDO in partnership with the governments of Mexico and the United States is focused on reducing nutrient enrichment of the ecosystem and restoring fish stocks, with the ultimate objective of establishing the foundations of a sound management scheme for this important marine area. The issues raised by the 2010 oil spill in the Gulf of Mexico also had to be addressed. The project infrastructure is already in place. Three demonstration interventions are under way, and a “trans-boundary diagnostic analysis” has been drafted and reviewed in ample discussions. The project brings together government agencies, the private sector, and civil society organizations thereby fostering a constructive dialogue capable to mobilize support for this international endeavour.

The recently developed GEF strategy aiming to reduce mercury pollution of waters and the atmosphere has revived and will expand significantly a UNIDO initiative dating back to the 1990's. Conceived in cooperation with UNDP, the Global Mercury Project was a blueprint of measures designed to reduce mercury contamination of water bodies by artisanal and small-scale gold mining. Launched in 2002, the project focused initially on six major international water basins affected by gold mining operations in Brazil, Lao People's Democratic Republic, Indonesia, Sudan, United Republic of Tanzania, and Zimbabwe. The introduction of cleaner extraction technologies and the development of regulatory mechanisms capable to minimize negative environmental effects were the main strategies in pursuing the project's objectives. Between 2002 and 2007, mercury discharges were reduced at ten pilot sites, and the project contributed significantly to raising international awareness of the importance of combating mercury pollution.



Artisanal gold mining in Mali.

By addressing concerns related to international waters and chemicals, the Global Mercury Project is an illustration of the long-standing UNIDO effort to capitalize on synergy possibilities in dealing with cross-cutting environmental issues.

## The way forward

Natural resource depletion, environmental degradation, climate change, biodiversity loss, pollution of international waters, and depletion of the ozone layer continue to threaten the global environment. At the same time, poverty eradication, spreading the benefits of globalization and making it work for the poor, and managing the transition to a sustainable, low-carbon path of development, while achieving universal access to energy, remain challenges that need to be addressed if progress is to be made towards meeting the Millennium Development Goals. Responding to these challenges will continue to be a major item on the global development agenda, and in this respect, new technologies, innovative methodologies, green industries, and solid financial mechanisms need to be developed for both rural and urban communities.

The key is to enhance the existing international mechanisms for the development and dissemination of technologies, to remove barriers, and to provide predictable financial resources and other incentives for scaling up investment in environmentally sound technologies around the world, especially in developing countries and countries with economies in transition. It is here that the multilateral system has a central role to play in bringing countries together and building consensus on norms and standards to which all states can adhere for their common good. In this respect, the need to cooperate with a multitude of partners plays an ever increasing role for UNIDO in addressing these complex issues. Such partners range from national government entities to industry associations, and from multilateral organizations to bilateral agencies.

UNIDO has long recognized that environmental issues must be addressed and cleaner production methodologies must be promoted at a systemic level in industrial development. The promotion of resource utilization efficiency and cleaner production requires a perspective and a decision-making process that simultaneously consider economic value and environmental sustainability. Industry, as the prime producer of goods and services that societies consume, has a critical role to play. The Green Industry concept, with its focus on the elimination or significant reduction of the dependence on hydrocarbon fuels, toxins, and equipment and processes that generate greenhouse gases, is one of the adequate answers that UNIDO has developed and promotes in its global forum and technical cooperation activities.

Relying on its technical expertise, UNIDO will continue to attend to these global challenges. Continued UNIDO-GEF cooperation will allow both organizations to further help countries around the world strive to find a viable balance between the pursuit of prosperity and sound environmental stewardship.



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