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CLIMATE CHANGE STRATEGY

2010-2013

UN HABITAT
FOR A BETTER URBAN FUTURE



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INTRODUCTION

The purpose of this document is to help better understand how climate change impacts on cities and urban centres, with particular emphasis on urban slums, and how best UN-HABITAT can shape its activities at global and country levels, drawing on its comparative advantages, especially in the focus area of its Medium Term Strategic and Institutional Plan, the “One UN” approach to climate change action and the Governing Council resolution GC22/3 on Cities and Climate Change and utilizing its experience gained in promoting the Cities and Climate Change agenda.

UN-HABITAT is well placed to apply know-how and mobilize partnerships for implementing the “urban dimension” in the climate change debate. It can make available to governments its global policy-setting role, technical expertise, country presence and networks. The cross-sectoral approach to urban systems applied by UN-HABITAT is particularly well suited for the goals of integrated low-carbon urban planning solutions for housing, transport and public utilities. Further, the focus of the agency on vulnerable urban populations contributes to climate change adaptation programmes in urban areas, including climate-proofing urban infrastructure and services, and enhancing climate resilience of slums residents.

THE CHALLENGE: CITIES AND CLIMATE CHANGE

CITIES CONTRIBUTE TO CLIMATE CHANGE

Urbanization and climate change are virtually inseparable. In thermodynamic models of the atmosphere, cities appear as heat islands. This is due to the high density of concrete and asphalt, as well as to the high energy consumption and the high greenhouse gas emissions occurring in cities with large populations. In the United States, 3 to 8 per cent of urban energy demand is used to counteract the heat island effect of cities. Energy for heating and lighting residential and commercial buildings account for a quarter of greenhouse gas emissions globally while transport accounts for 13.5 per cent

CO₂ is mainly emitted in urban areas and it is urban and inter-urban activities that lead to the emission of significant amounts of other radiatively-active gases such as methane, carbon monoxide, and chlorofluorocarbons (CFCs). Globally, greenhouse gas emissions from motorized vehicles and transport are rising and contribute to local and regional pollution problems through the emission of carbon monoxide, lead, sulphur oxides and nitrogen oxides. Other sources of greenhouse gas emissions include the production and use of electrical energy for public lighting and transportation, and industrial, commercial and domestic consumption. Industry is responsible for almost half of the global CO₂ emissions from fossil fuel combustion. Energy for electricity, heating, transport and industry generates more than 60 per cent of greenhouse gas emissions. The US, China, the European Union, Russia and India together produce 61 per cent of global CO₂ emissions. Latin America is responsible for 12 per cent of global CO₂ emissions with half coming from deforestation. Rich cities produce more greenhouse gases than poor cities. Increased income and changing lifestyles increase consumption and energy dependence. Where there is reliance on private cars for transport, there is typically, exceptionally high levels of emissions.

In addition, due to continuing global urbanization, a reduction in the amount of green cover, parks, trees and agricultural surfaces in urban areas, reduces a city's ability to absorb CO₂. Moreover, poor waste management releases chlorofluorocarbons (CFCs) and gases such as methane into the atmosphere. Approximately, within the city, half of the greenhouse gas emissions are from burning fossil fuels in transportation. The other half comes from energy in-use in buildings and the operation of appliances, a situation symptomatic of our built environment and our quest for quality-of-life in urban places.

CITIES ARE AFFECTED BY CLIMATE CHANGE

Half of humanity now lives in cities. This will increase to 60 per cent within two decades. In the last two decades, the urban population of the developing world has increase by approximately 193,000 people per week. The rate of change in urban populations in Africa (over 3 per cent), is the highest in the world.

The impact of high and increasing greenhouse gas emission levels in cities together with a decrease in absorption capacity, include higher temperatures and pollution, with consequential risk to human health and human activities. Severe weather events, including tropical storms and related storm surges whose frequency, severity and location may differ significantly from past experience, are likely to have serious consequences for cities, including by contributing to an increase in local and inter-urban migration and by adding new challenges for urban development including, for example, issues of land use and land tenure. The impacts of climate change may negatively affect the infrastructure, worsen the access to basic urban services and unfavourably affect the quality of life in cities. Abrupt and large scale climate change could lead to a loss of 5-10 per cent of GDP with developing countries at the higher end of that estimate.

While demand for potable water rises, so climate change will adversely impact the supply and quality of water resources. Global warming is likely to result in an intensification, acceleration or enhancement of the global hydrological cycle. There is already evidence that this is happening in some regions through increased frequency of floods, droughts and changes in long-term precipitation trend. Of course, most affected will be the urban poor – the slum dwellers in developing countries.

More than half of the world's population lives within 60 km of the sea, and three quarters of all large cities are located on the coast. Globally, 60 per cent of the world's population lives in Low Elevation Coastal Zones (less than 10 metres above sea level). The Low Elevation Coastal Zones represents 2 per cent of the world's area but 10 per cent of its population. Coastal zones are the most urbanized with 80 per cent of coastal populations living in cities. 14 of the world's 19 largest cities are port cities.

Melting glaciers and ice-shelves together with warmer oceans will result in a rise in sea level that will threaten coastal infrastructure and pollute groundwater resources through salt intrusion and the inundation of water supply and sewage disposal

facilities. In Polar Regions, thaw will reduce the stability of cities located on permafrost.

Climate change leads to changes in the natural habitat. Species might die out, flourish or migrate in unpredictable ways. Invasive species of plants and pests can do great harm, while the spread of vector-borne diseases such as malaria and dengue fever, will adversely impact human health well beyond the current range of such diseases.

Climate change also affects local and regional weather patterns. This may adversely affect agricultural production and create food shortages in cities. Rising temperatures also result in increased energy use, for example, for air conditioning, which in turn leads to additional greenhouse gas emissions. Conversely, shorter and less severe winters in higher latitudes could have the opposite effect as the need for heating is reduced.

There are a number of particular areas of concern to UN-HABITAT in the context of climate change and its potential impact on political and personal security. Forced in-migration contributing to unplanned urbanization; sea-level rise forcing inland expansion; sea-level rise and the loss of habitat and risk of statelessness; changes in the supply and demand of potable water at community level including increased vulnerability of water utilities themselves, all represent potential security threats in human settlements. Disputes or conflicts concerning access to land, services or other resources including the rule of law, is possible in cities, towns and other settlements where existing capabilities are constrained by development challenges, skill shortages and economic limitations unless adequate adaptation strategies are implemented. In certain countries, migrants are the most vulnerable population; marginalized in informal settlements and living outside the formal economy. This is particularly true for cross-border refugees. As climate changes and sea-levels rise, their situation worsens, destroying livelihoods, habitat and even Nations. It is important to ensure that "climate change refugees" are not reduced to extreme urban poverty in host cities and countries.

CITIES ARE PART OF THE SOLUTION

The growing urbanization trend, especially in developing countries and in coastal cities, makes the search for policy solutions acute. Climate change and accelerating urbanization demand urgent formulation and implementation of rational adaptation strategies supported by good governance, urban planning and management, including the application of new building codes and other appropriate laws designed to ensure minimal greenhouse gas emissions. The increasing

risks regarding flood exposure in rapidly developing cities, for example, urgently underscores the need to integrate climate change implications into urban development strategies and flood and weather disaster risk management.

Cities and local authorities have the potential to influence both the causes and consequences of climate change. They can also contribute to national and international strategies to prevent unacceptable climate change impacts. Currently, urban transport, the construction industry and shelter-related energy are the principal contributors of greenhouse gases to the atmosphere. On the other hand, cities offer opportunities to reduce emissions through economies of scale interventions and the numbers of participating communities involved in reduction strategies. The obligation consequently falls on cities to provide leadership and direction and implement practical initiatives for the communities and citizens they represent. In a participatory manner, they need to develop local strategies towards a sustainable future, addressing climate change impacts; mitigation and adaptation through urban planning and management.

Already, cities around the world are carrying out a vast range of activities related to energy efficiency, renewable energy, cleaner production and the application of regulations to control industrial emissions and to improve architectural designs for energy efficiency. Efforts to reduce traffic, improve traffic flow and improve public transportation are just but a few local authority actions which significantly reduce CO₂ emissions. It is crucial that successful measures and good practice are shared through effective information dissemination. To this end, many cities have linked with others to form "cities in climate change networks", sharing experiences and information, and learning from each other on the planning and management implications of climate change, including preparation for, and implementation of, municipal climate change action plans. However, in the developing world, local authorities are in need of further support relating to capacity building, information acquisition and exchange, technology transfer, technical support and establishing an enabling environment

THE ROLE OF CITIES IN MITIGATION AND ADAPTATION

Cities both contribute to climate change and are affected by its impacts. However, the degree to which any city's emissions contribute to climate change is not necessarily matched by the range and severity of impacts it will be obliged to endure and address. For example, a low-lying coastal city in a developing country with a minimal industrial base might have a small carbon footprint yet could face



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devastation from a rising sea-level through loss of land and infrastructure, coupled with more frequent and severe tropical storms with the potential to cause major economic loss and danger to citizens. Other cities with advanced economies and high greenhouse gas emission budgets might benefit from warmer winters or other benefits of climate change that could categorize them as potential winners from a changing climate.

Cities have no control over the local impacts that result from a global change in climate. They can only anticipate what the effect might be, calculate the risks and decide the level of response. Preparation and early implementation of an appropriate mitigation strategy will limit the degree to which adaptation may be necessary. Inaction leading to forced adaptation will in most cases result in a significant human cost. But, without additional financial and material resources, the poorest and most vulnerable nations will not be in a position to implement the preparatory actions that will allow effective and affordable adaptive measures. Ideally, cities need to invest heavily in both local mitigation and adaptation measures.

Individual circumstances will determine whether emphasis is placed on the former or the latter. Reality, however, particularly that which applies to the poorest urban communities in the developing world, may dictate that preparations are minimal and the impacts of climate change endured rather than addressed. International treaties to address climate change must focus on the needs of the most vulnerable at the same time that they apportion mitigation responsibilities to the richer nations.

Both adaptation and mitigation strategies in urban areas require new and improved infrastructure and basic services. This provides cities in developed and developing countries with unique opportunities to redress existing deficiencies in housing, urban infrastructure and services and to create jobs and new opportunities to stimulate the urban economy.

Effective adaptation and mitigation strategies require a concerted approach to pro-poor climate-proof urban and regional planning and economic development strategies to be implemented at the local level in response to local circumstances and conditions. For this to happen, predictable long-term financial and technological support will be required in many developing countries to strengthen the capacity of local authorities to participate in the formulation and implementation of such strategies.

It is also probable that national and regional responsibilities to reduce carbon emissions as part of international agreements may also dictate the degree to which individual cities are required to limit national carbon budgets and thus, in turn, influence the share of municipal resources allocated to mitigation or adaptation, irrespective of local circumstances that might suggest a different emphasis. The guidance and support of UN-HABITAT through its climate change strategy within its Medium Term Strategy and Institutional Plan will provide cities with the information and means necessary to ensure sustainable urban development as climate changes and sea levels rise.



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MANDATES AND ROLES

THE MANDATE OF UN-HABITAT ON CITIES AND CLIMATE CHANGE

The Habitat Agenda, which is the framework for all activities of the agency, addresses among others, issues related to increasing the resilience of cities to the impacts of climate change. For example, UN-HABITAT is mandated to coordinate the development of human settlements and sustainable energy production and energy use by encouraging energy efficiency, alternative energy, mass transit schemes and related public awareness campaigns.

The Declaration on Cities and Other Human Settlements in the New Millennium asks for supporting national and international cooperation networks, in order to reduce the vulnerability of human settlements to natural and human-made disasters, and for improving shelter conditions, especially in developing countries and in critical natural environments.

This clear mandate is underlined by different regionalized resolutions of UN-HABITAT's Governing Council, such as on the preservation and sustainable development of oases, sustainable development of Arctic cities and human settlements.

The UN-HABITAT 22nd Governing Council (GC22) has adopted a resolution on Cities and Climate Change. This resolution reflects the increasing recognition of the relation between urbanization and climate change. It also recognizes that proper adaptation and mitigation actions taken at the local levels and being integrated into national policies will be of importance in tackling the global challenge of climate change. It lays the foundation for UN-HABITAT's further work in this field and calls on governments, amongst others, to widen the geographical scope of the ongoing work on cities and climate change and to expand the range of capacity-development approaches in order to support local authorities in addressing climate change.

CLIMATE CHANGE IN UN-HABITAT'S MEDIUM TERM STRATEGIC PLAN 2008-2013

Deriving from this mandate, UN-HABITAT has crafted the Medium Term Strategy and Institutional Plan to institutionalise concrete and practical support to local governments, city networks and associations, among others, to address climate change and its implications at local, regional and global levels. The Medium Term Strategy and Institutional Plan calls for enhancing better management of urbanization to prevent uncontrolled urban sprawl, pollution and unsustainable consumption of land, water and other natural resources, that accelerates environmental degradation and the negative impacts of climate change.

This broad approach towards climate change action is meant to contribute to the overall aim of achieving decentralized, reactive, liveable, productive and inclusive cities, towns and villages through an ecologically sound growth that is people-centric and embraces social harmony, economic vitality and environmental sustainability.

All Medium Term Strategy and Institutional Plan Focus Areas (FAs) have actionable components related to climate change.

THE UNITED NATIONS "ACTING AS ONE" ON CLIMATE CHANGE

Deriving from the Chief Executive Board for Coordination commitment "UN Acts as One", concrete approaches for synergies and strategic partnerships are being developed between UN-HABITAT and concerned bodies such as the United Nations Environment Programme (UNEP), the United Nations Development Programme (UNDP), the Intergovernmental Panel on Climate Change (IPCC), the World Bank, the Cities Alliance, the Global Environment Fund (GEF), the United Nations Framework Convention on Climate Change (UNFCCC), the World Meteorological Organization (WMO), the United Nations Food Programme (UNFPA) and United Nations Children's Fund (UNICEF), building on a common UN rationale.

UN-HABITAT IS MANDATED TO CONTRIBUTE TO THE FOLLOWING FIVE KEY AREAS WHICH WERE PRIORITIZED BY THE CHIEF EXECUTIVES BOARD DECISION OF APRIL 2008, AS FOLLOWS:

	Key Areas	Key actions and concerns
1	Adaptation	Developing and applying Environmental Planning and Management methodologies to address climate change at the local level. The currently used methodologies by over 100 global cities must be improved and climate change focused processes must be developed to link local and national action plans.
2	Capacity Building	Developing awareness-raising methodology, convening training and planning workshops at the local, national, regional and global levels. Collaborative activities with relevant agencies i.e. UNITAR, WHO, WMO, UNEP, etc
3	Financing Mitigation and Adaptation Actions	Increasing local capacity, especially of developing and least developed countries, to assess investment and finance flows to address climate change. Collaboration with UNEP, World Bank and others. Advice and help to be provided for cities at regional levels to harmonize their projects to target CDM funding mechanisms.
4	Reduction of Emission from Deforestation and Degradation (REDD)	Restoring of urban environments; Rehabilitating of City parks and green spaces. Protecting forests and ecosystem when planning cities expansions. Forging cooperative activities in cities with FAO, CBD and others.
5	Technology Transfer	Identifying and satisfying needs for climate safe technology relating to building materials, energy efficiency and renewable energy. Assisting applications of these new technologies within cities. In cooperation with relevant UN Agencies and Bodies such as UNEP, UNIDO, UNDP, UNDESA.

Accordingly, many of UN-HABITAT activities and programmes are designed to be implemented in close collaboration with the above United Nations Agencies and Bodies, as well as local authorities, national governments, non-governmental organizations, training and research institutions. UN-HABITAT furthers its efforts, in cooperation with UN-counterparts, by pointing out risks that cities face, including those that are climate-related, and highlighting best-practice measures to mitigate or prevent disasters. In line with the UN Chief Executives Board Climate Change Action Framework, UN-HABITAT recognizes the need to strengthen national capacities in developing countries to access investment and financial flows in order to address climate change; to help developing countries vulnerable to climate change to design better strategies to adapt and understand the costs involved; to assist developing countries in leveraging carbon finance for clean energy development and sustainable land use practices; to work with municipalities and enterprises to broaden public-private partnerships; and to support efforts to customize new insurance and re-insurance products for climate change risk. Such efforts will further enhance the development of methodologies and tools to support local and national governments to access both international financing mechanisms and possible local resources to enact policy change and for local authorities to leverage new sources of finance to support climate change strategies and actions. UN-HABITAT also recognizes the need to

mainstream energy efficient measures into existing national and local building norms and codes

COOPERATION WITH NON-UN ORGANIZATIONS

While the United Nations “Acting as one” presents a coordinated and relatively comprehensive approach to preparing for, mitigating and adapting to climate change, particularly where nations and communities currently lack the resources and skills to deal effectively with the challenge of global warming, there exists a wealth of expertise outside the UN that can enhance the effectiveness of the local, regional and global response to the threat of climate change. It is important for UN-HABITAT to cement existing partnerships, and forge new ones within government, non-governmental organizations, educational establishments, scientific institutions and financial bodies that have the collective resources, infrastructure, expertise and the financial power. Key organizations include, amongst others, Local Governments for Sustainability (ICLEI), United Cities and Local Governments (UCLG), Metropolis, the Clinton Climate Initiative (C40), the International Institute for Environment and Development (IIED), Urbanization and Global Environmental Change (UGEC), Climate Change, Environment and Migration Alliance (CCEMA).



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STRATEGIC FRAMEWORK FOR ACTION

UN-HABITAT'S FOCUS CONCERNING CITIES AND CLIMATE CHANGE

Since its creation in 1978, UN-HABITAT has supported hundreds of cities in improving their living environment. This has been achieved through its various programmes, including, but not only, the Sustainable Cities Programme, Localizing Agenda 21, Disaster Management Programme, Safer Cities Programme, Water for African Cities, Water and Sanitation Programme, the Lake Victoria Initiative and others. Most of these activities and programmes were designed and implemented in close collaboration with various partners such as other UN agencies and bodies, especially UNEP and UNDP, and with Local Governments for Sustainability (ICLEI), national governments, local authorities, NGOs and education, training and research institutions.

Keys to successfully addressing climate change in cities include the issues of governance, improved water management, poverty reduction, participation of the youth, gender and urban planning and management. Special care must be given to environmental degradation; ecosystems, biodiversity and problems connected with desertification; land tenure degradation, erosion and inundation. All stakeholders have roles they can play in addressing these issues, including the creation of incentives/disincentives, education and training on climate change mitigation strategies and the identification and promotion of new technologies that improve the environment. Stakeholder partnerships will be fundamental in applying strategies that will mitigate climate change.

UN-HABITAT is strategically placed to influence and support local, regional and global efforts to address future climate change and the role of cities, by reasons of its mandate, structure, work programme and experience. It is able to guide discussion with Parties to the United Nations Framework Convention on Climate Change on the crucial role cities can

play in climate change mitigation. In order for cities to react to climate change in the most appropriate and effective way, they need access to affordable technology and to acquire the capacity to anticipate and adapt to climate change impacts in a timely fashion, using both tested and innovative ways. UN-HABITAT's support to local governments and its guidance in building and strengthening institutional capacities will ensure effective response capabilities at the municipal level.

UN-HABITAT's existing partnerships with other UN bodies and agencies is being strengthened and new alliances forged with governments, appropriate non-governmental organizations and the private sector to ensure a targeted approach to climate change mitigation and response to climate impacts.

All stakeholders must to be involved in planning and implementing climate change strategies in urban areas. By ensuring that climate change information is included within formal municipal education programmes, and by creating public awareness, including within slums and other informal sectors, and paying particular attention to the needs and potential roles that can be played by the youth and women, UN-HABITAT is ensuring the broadest based response to climate change in both mitigation and adaptation. UN-HABITAT programme areas concerning urban planning, environmental technology, financial management and local economic development will include a climate change component. The issue will be incorporated as a cross-cutting issue into UN-HABITAT initiatives and Habitat country programmes and related documents.

UN-HABITAT strives towards being a climate-neutral organization and will collect and share information on best practices on energy efficiencies and other processes that reduce or eliminate greenhouse gas emissions from human settlements.

STRATEGIC PRIORITIES 2010-2013

Strategic Priorities	Related Actions
A. Policy Dialogue and Advocacy	Encouraging parties to the United Nations Framework Convention on Climate Change at the sessions of its forthcoming Conferences of the Parties to take into account the crucial role of cities and climate change strategies
	Including the issue of cities and climate change as an integral part of national climate change strategies, including mitigation and adaptation, with particular emphasis on the impact of climate change on the urban poor
	Enhancing policy dialogue between national and local governments in order to create synergies between national and local climate change policies
	Promoting active collaboration of local governments and their associations in global, regional and national networks to pursue goals of sustainable urbanization, using the challenges of climate change as entry points.
B. Capacity Development and Institutional Strengthening	Strengthening capacities in promoting pro-poor clean and affordable technological options, promoting innovative approaches to urban planning and management, and conducting vulnerability assessments and risk mapping at the local level
	Expanding the range of capacity-development approaches in order to support local authorities in addressing climate change
	Supporting local governments applying change management by promoting tools and knowledge management strategies to adopt innovations and undertake reforms to optimize their responses to climate change
	Providing support in adapting to climate change in governance, planning and management through a participatory decision-making approach
C. Promoting Innovative Implementation Partnerships	Strengthening existing cooperation with the United Nations Framework Convention on Climate Change on issues of cities and climate change
	Strengthening partnerships with the United Nations Environment Programme (UNEP), the United Nations Development Programme (UNDP), Intergovernmental Panel on Climate Change (IPCC), the World Bank, United Nations Framework Convention on Climate Change (UNFCCC) and the World Meteorological Organisation (WMO)
	Strengthening partnerships with United Cities and Local Governments (UCLG), Metropolis, C40 and Local Governments for Sustainability (ICLEI)
	Facilitating cities' access to financial resources for urban mitigation and adaptation
	Exploring new partnerships with the private sector and with networks of community based organizations
D. Awareness, Education and Networking	Fostering the implementation of awareness and education strategies targeting the general public, formal education and continued learning institutions
	Increasing awareness of the role of cities in addressing climate change, with particular emphasis on the impact of climate change on the urban poor and in achieving the Millennium Development Goals and sustainable development
	Encouraging Habitat Professionals to integrate climate concerns in urban planning, environmental technology, financial management and local economic development.
	Collecting and sharing case studies on good practice, amongst others, on promoting energy efficient buildings and settlement structures and on mechanisms to assist cities in preventing land-use conflicts arising from relocation of human settlements
E. Corporate mainstreaming and pursuing Climate Neutrality	Integrating climate change as a cross-cutting issue into UN-HABITAT's initiatives and Habitat Country Programme Documents (HCPDs)
	Striving to become a climate neutral organisation as part of a comprehensive environmental management approach



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WORK PROGRAMME ACTIVITIES AND EXPECTED RESULTS

Awareness of the significance that a changing climate will have for cities coupled with a rational and determined set of strategies for the early incorporation of climate change mitigation and adaptation policies will assist in the effective implementation of the Medium Term Strategic and Institutional Plan (2008-2013). The UN-HABITAT climate change strategy will contribute to the achievement of the overall goal of the Medium Term Strategic and Institutional Plan of sustainable urbanization through early identification of the risks and opportunities associated with the anticipated impacts of climate change and the formulation and application of policies that directly address the additional challenges that arise.

Although climate variability and change affects the identified focus areas in different ways and with different levels of severity, climate has to be considered and incorporated into the entire strategic planning, management and governance of cities. Nevertheless, it is appropriate to prioritize actions, especially in the short and medium term, to ensure the timely realization of the major goals of the Medium Term Strategic and Institutional Plan. In particular, the expected results of implementing the climate strategy, as outlined in this document, will include the following:

A BRIEF OUTLINE OF UN-HABITAT'S WORK RELATED TO CITIES AND CLIMATE CHANGE

Focus Area	Work Programme Activities	Expected Results
1. Advocacy, monitoring and partnerships	- Cities and Climate Change: Global Report on Human Settlements 2011. The objective is to improve evidence-based knowledge, among Governments and Habitat Agenda Partners, on current conditions and trends with respect to the links between cities and climate change, and how cities can mitigate and adapt to climate change impacts. The report will identify and highlight effective city level policy responses to climate change that need to be promoted. - Global Campaign for Sustainable Urbanisation Is a systemic approach towards partnership, advocacy and networking. Actions under the Campaign include unique and periodic events (such as World Habitat Day and the World Urban Forum); the publication of magazines and the development of television content and educational tools. - Youth and Gender By recognizing that the youth and women are especially vulnerable to climate impacts but are also a powerful resource that can be encouraged and mobilized to undertake mitigation and adaptation activities for urban community wellbeing, slum eradication and improved city management. This can be facilitated by designing targeted youth programmes, equipping young people with the tools to address climate change, building on existing educational initiatives to include a climate change component and by strengthening linkages with grassroots and other organizations where women and young people form a significant and active part.	- The documentation and dissemination of trends and good practices will provide impetus to accelerate local level action to combat climate change. - New data on greenhouse gas emissions and vulnerability will provide a basis for more informed national and local policy making with regard to climate change responses. - Special attention to concerns of gender and youth will increase ownership and impact of the climate strategy. - Involvement of a wide range of Habitat Agenda Partners will allow cities to expand and deepen the achievements in addressing climate change.

2. Participatory urban planning, management and governance	• Sustainable Urban Development Network (SUD-Net) SUD-Net is a global network of partners designed to further the understanding and application of the principles of sustainable urbanization, at global, regional, national and city levels. • Cities and Climate Change Initiative (CCCI) The objective is to enhance climate change mitigation and preparedness of developing country cities, through advocacy, tool development, capacity building and pilot initiatives. CCCI is also playing a coordinating role to ensure a coherent approach to “Cities and Climate Change” across the agency's programmes. The expected accomplishments of this initiative encompass a wide range of thematic entry points. • Urban Governance The strengthening of governance structures and the adaptive capabilities of governments and communities as well as their preparedness, to ensure effective response to climate change. Ensuring accessible and understood, robust information, tools and guides are available to decision-makers. • Urban Planning UN-HABITAT aims to integrate climate change mitigation and adaptation concerns in its urban planning work. Many green innovations can be integrated into statutory urban planning and development control systems, including planning and building standards and regulations.	• New policies will allow the strengthening of governance structures and the institutional capabilities of national and local administrations to incorporate climate considerations within laws applicable to urban planning and management. • Institutions that actively promote sustainable urbanization will ensure that a climate dimension is incorporated within local, national and regional programme planning. • Inclusive urban planning, management and governance undertaken in targeted countries will include climate change considerations in addition to economy, ecology and equity dimensions in sustainable urbanization. • Risk- and vulnerability-reduction programming in the management and governance systems will address the added risks associated with the adverse impacts of a changing climate.
3. Pro-poor land and housing	• Land issues The Global Land Tool Network assists with planning and building regulatory frameworks; legal framework of land use and a wide range of areas where land legislation and policies impact on climate change. • Shelter and Building Materials Developing new and appropriate technologies for building materials, efficient energy production and use and renewable energy resources. • Disaster Risk Reduction Projects will seek to pro-actively integrate climate change adaptation and mitigation elements in settlement planning and shelter reconstruction.	• Land and housing policies will include consideration of the potential impacts of climate and sea-level rise, including land degradation and desertification in connection with droughts, floods, erosion, sea-level rise and inundation, on land-use and availability. • Slum improvement programmes will consider the impacts of climate change on vulnerable sectors such as water and energy needs and availability, sanitation and health as part of future planning and development.
4. Environmentally-sound basic infrastructure and services	• Transport Ways will be identified that will promote urban productivity and improved living and working conditions for urban populations by appropriately meeting transport needs in an economically efficient and environmentally and socially sustainable manner. • Water and Sanitation UN-HABITAT factors climate change impacts within its work programme, on potable water accessibility and affordability for thirty cities. It actively promotes an integrated approach to sanitation and water, including water conservation, water harvesting, reuse and recycling, and improved water utility management. The treatment and environmentally-safe disposal of Municipal Solid Waste is another issue receiving attention, with a special focus on the linkage between solid waste and greenhouse gas emissions. Climate vulnerability and adaptation assessments of water utilities and the communities they serve in order to assess infrastructure improvements are required. • Energy Encouraging investment that will assist cities to benefit from more diversified and sustainable energy policies and practices involving the use of renewable energies and by introducing energy-saving measures in buildings and for businesses. UN-HABITAT is, for instance, recognizing good practice in cities in the developing world that are implementing programmes to promote the use of solar energy for water heating.	• Policies aimed at increasing access to environmentally sound basic urban infrastructure and services will avoid potential problems associated with adverse impacts of climate change and sea-level rise, including those affecting storm-water drainage, water and sanitation, waste management, roads and transportation, through better awareness, appropriate institutional support and targeted adaptation and mitigation strategies
5. Strengthened human settlements finance systems	• Finance Mobilizing local capital for slum upgrading and related infrastructure, ensuring that climate change concerns are fully incorporated into planning to ensure the preparation for and mitigation of, adverse impacts.	• New and additional sources of finance will become available to support climate change strategies and actions relating to the need for affordable housing and infrastructure.
6. Excellence in management	• Carbon Neutrality Reducing and offsetting greenhouse gas emissions to ensure that the organization becomes climate neutral. Undertaking capacity building and management improvements by promoting networking and information exchange that can minimize future carbon emissions within urban communities.	• Climate neutral processes will be adopted and promoted as a contribution to international mitigation policies.

REGIONAL APPROACH

Climate impacts will not be uniform across the globe. Regional impacts will be determined by a variety of circumstances, including geography, topography, location of settlements, population density and the range of climatic variability likely to be encountered. Regional vulnerability is also variable with the potential severity of adverse impacts dependent upon national and regional circumstances and level of preparedness. It is important to sensitize cities, particularly within vulnerable States, on the dangers of climate change using the mass media and in collaboration with governments. This will help cities develop policy options on climate change based mainly on vulnerability assessment, price-based policy instruments, climate-friendly energy use, consumption patterns, and human settlements planning. Not all the potential impacts of global warming are bad and when possible, States must take advantage of opportunities that might be presented. Some regions with special circumstances are addressed below:

COASTAL CITIES AND SMALL ISLANDS

Coastal cities are particularly vulnerable both to the change in mean temperatures and extreme weather events. But the greatest challenges stem, in both the long and short term, from rising sea-level. The strategy for coastal cities and small island states must take into consideration land erosion, ocean inundation and salt intrusion, damage to the natural environment including coral reef dieback and bleaching, protection of coastal settlements and infrastructure, especially water supply and sewage disposal. Within the tropics and sub-tropics, tropical storms may become more intense, more frequent, extend over a longer period and occur in areas presently not considered especially vulnerable to such events. Low lying islands and coastal areas, especially densely populated river deltas, face risks of catastrophic proportions.

SUBTROPICAL AND DESERT REGIONS

Cities in these regions will experience higher average temperatures and potentially, unprecedented climate extremes. Drought-prone nations, especially those in the continental centres are likely to have longer and more frequent droughts. Rainfall will not necessarily guarantee relief as storms may be violent resulting in flood, landslides and erosion. Also, extended periods of droughts as well as deforestation will expose cities in these regions to desertification.

ARCTIC REGION

Cities and human settlements in the Arctic region are mainly exposed to rising sea levels, increasing precipitation and the melting of permafrost soils with their effects on foundations of buildings and infrastructure. However, winters are likely to be shorter and less extreme opening up land for cultivation and habitation. Sea ice will melt providing a potential for extended shipping operations, new trade routes, shorter journeys and mineral exploitation. There will be both risks and advantages for arctic flora and fauna and new conservation strategies must be explored. Moreover, the socio-economic aspects of climate change for indigenous people have to be taken into account.

UN-HABITAT uses a set of criteria to select countries and cities that will benefit from intensive capacity development. These criteria include the specific climate change threats, the level of vulnerability, the existence of national climate change plans and the political commitment of local authorities. In addition, socio-economic indicators, field presence as well as partnership opportunities are factored in.



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