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**AD HOC WORKING GROUP ON LONG-TERM COOPERATIVE ACTION
UNDER THE CONVENTION**

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Enabling the full, effective and sustained implementation of the Convention through long-term cooperative action now, up to and beyond 2012, by addressing, inter alia:

A shared vision for long-term cooperative action

Enhanced national/international action on mitigation of climate change

Enhanced action on adaptation

Enhanced action on technology development and transfer to support action on mitigation and adaptation

Enhanced action on the provision of financial resources and investment to support action on mitigation and adaptation and technology cooperation

Adaptation-related activities within the United Nations system

Note by the secretariat*

Summary

This information note provides a description of ongoing work within the United Nations system on adaptation to climate change. It presents details of the work undertaken on adaptation by United Nations bodies and programmes, and related organizations of the United Nations system, on adaptation planning and implementation, streamlining and scaling up financial and technical support, and enhancing knowledge sharing.

The information contained in this document can be used to consider how to strengthen the catalytic role of the UNFCCC in stimulating enhanced adaptation action by the United Nations system, at national and regional level.

* The UNFCCC secretariat would like to thank all entities of the United Nations system that provided inputs into this information note.

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I. Introduction

A. Mandate

1. The Ad Hoc Working Group on Long-term Cooperative Action under the Convention (AWG-LCA), at its second session, requested the secretariat, subject to the availability of financial resources, to prepare and make available for consideration at its fourth session an information note on adaptation-related activities within the United Nations system.¹

B. Background

2. This information note on adaptation-related activities within the United Nations system complements the earlier information note requested by the AWG-LCA on ongoing work under the Convention relating to issues identified in paragraph 1 of decision 1/CP.13 (the Bali Action Plan).²

3. Article 2 and Article 4, paragraphs 1(b), (e) and (f), 8 and 9, of the Convention contain references relating to adaptation. The main ongoing work under the Convention on this matter includes:

- (a) Implementing the Buenos Aires programme of work on adaptation and response measures (decision 1/CP.10);
- (b) Implementing the Nairobi work programme on impacts, vulnerability and adaptation to climate change (decision 2/CP.11);
- (c) Supporting the preparation of national adaptation programmes of action (NAPAs) (decision 5/CP.7).

4. At the twenty-eighth sessions of the subsidiary bodies, Parties identified the urgency of the need for adaptation by agreeing to advance the implementation of decision 1/CP.10 through a set of activities and a process that will allow Parties to assess the status of the implementation of adaptation action at the fourteenth session of the Conference of the Parties (COP).

5. At the same session, Parties also agreed upon a detailed set of activities for the second phase of the Nairobi work programme up to the end of 2010.

6. NAPAs submitted to the secretariat by least developed country (LDC) Parties provide information on their urgent and immediate adaptation needs. As at November 2008, 38 NAPAs had been submitted to the secretariat, detailing 430 priority adaptation projects (box 1).

7. Funding for adaptation, is provided through the financial mechanism of the Convention, currently operated by the GEF and the Adaptation Fund Board. Three avenues for funding were established under the GEF: the Strategic Priority on Adaptation (SPA) under the GEF Trust Fund, the Least Developed Countries Fund (LDCF), and the Special Climate Change Fund (SCCF). The Adaptation Fund was established to finance concrete adaptation projects and programmes in developing countries that are Parties to the Kyoto Protocol.

8. The Bali Action Plan has identified adaptation as one of the four key building blocks for a strengthened future response to climate change in order to enable full, effective and sustained implementation of the Convention through long-term cooperative action now, up to and beyond 2012. The Bali Action Plan highlights the need for enhanced implementation of adaptation action including: consideration of international cooperation to support urgent implementation of adaptation actions; risk

¹ FCCC/AWGLCA/2008/8.

² FCCC/AWGLCA/2008/INF.1.

management and risk reduction strategies; disaster reduction strategies; economic diversification to build resilience; and ways to strengthen the catalytic role of the Convention. Adaptation action will be supported by enhanced action on technology development and transfer and the provision of financial resources and investment.³

9. Deliberations on adaptation under the AWG-LCA are focusing on four areas identified by Parties as important to progress in implementation of adaptation:⁴ national planning for adaptation, streamlining and scaling up financial and technological support, enhancing knowledge sharing, and institutional frameworks for adaptation.

10. The Secretary-General, Mr. BAN Ki-moon, has put climate change, including adaptation to its impacts, at the top of the United Nations agenda: “every part of the UN system is committed to supporting Member States as an effective, inclusive and credible partner in mitigating and adapting to climate change”.⁵ This was in response to the UNFCCC negotiation process and in pursuance of the broader mandates and capabilities in the United Nations system. Organizations in the United Nations system are working individually and collaboratively to raise awareness, assist countries in adapting to the effects of climate change, help forge international cooperative action and carry out analytical work.

C. Approach

11. This information note sets out the work currently being carried out on adaptation to climate change within the United Nations system. The United Nations, under its Chief Executives Board (CEB), carries out work to ensure the effective coordination of its processes, including the work on adaptation, recognized as vital by the CEB and a large range of United Nations entities. The Convention plays a catalytic role in action on climate change, including adaptation, and in initiating activities within the United Nations system to help implement mandated activities, including those carried out under the Bali Action Plan.

12. Many organizations are doing relevant work on issues related to adaptation that are not mentioned here, including activities on sustainable development and achievement of the United Nations Millennium Development Goals (MDGs). Only the specific adaptation activities being carried out by the United Nations system, as well as the institutional arrangements that assist in the implementation of adaptation activities, are mentioned. The information note also details at which level organizations are engaged: internationally, regionally, nationally and locally. Annex 1 provides a list of the bodies, programmes and related organizations of the United Nations system referred to in the note.

13. The note addresses adaptation under three chapters, including:

- (a) Adaptation planning and implementation in chapter II. This chapter outlines the work being carried out by entities of the United Nations system on adaptation planning and implementation. The information is structured so as to detail information on adaptation activities. Section A describes entities that are working in more than one sector, that is, cross-sectorally, for example the CEB (paras. 19–20) or the United Nations Development Programme (UNDP) (paras. 21–26). Section B details adaptation planning and implementation activities occurring in specific areas and/or sectors, based on those identified by the work of the CEB. Both sections contain information on United Nations bodies and programmes that carry out the work individually and those that are working on the adaptation initiatives in collaboration with other parts of the United Nations system or with external partners (special agencies and related organizations);

³ Decision 1/CP.13, paragraph 1(d) and 1(e).

⁴ FCCC/AWGLCA/2008/11.

⁵ <<http://www.un.org/News/Press/docs/2008/sgsm11408.doc.htm>>.

- (b) Streamlining and scaling up financial and technological support in chapter III. This chapter provides information on the financial and technological support for adaptation to climate change that is available in the United Nations system. Information is provided on: the support available under the Convention, the support available from other entities within the United Nations system and the support available under special agencies and related organizations;
- (c) Enhancing knowledge sharing in chapter IV. This chapter details specific work being carried out within the United Nations system to enhance knowledge sharing, including training and awareness and capacity-building above and beyond that being carried out to plan for adaptation (as detailed in chapter II). The information is divided into United Nations bodies and programmes carrying out the work individually and those working on knowledge sharing in collaboration with other parts of the United Nations system or with external partners (special agencies and related organizations).

II. Adaptation planning and implementation

14. Structured approaches to adaptation planning are required in the identification, prioritization and implementation of adaptation objectives and actions. Effective planning involves a range of inputs in order to assess the impacts of, and a country's vulnerability to, climate change as well as the necessary adaptation measures required. Inputs include: systematic observation of atmosphere, ocean and terrestrial systems; climate modelling (including use of high resolution models); appropriate assessment tools; socio-economic data; local coping strategies; traditional knowledge; and knowledge of local technological capacity.

15. Sustainable development and progress towards attaining the MDGs are also important elements for integrating adaptation into national plans and programmes, as are risk management and risk reduction policies and poverty alleviation programmes.

16. The NAPAs under the Convention are an example of how countries have identified priority actions and, by doing so, helped raise awareness and mobilize national capacities (see box 1).

Box 1. National adaptation programmes of action

As at November 2008, the secretariat had received 38 national adaptation programmes of action (NAPAs), consisting of 430 priority projects, from: Bangladesh, Benin, Bhutan, Burkina Faso, Burundi, Cambodia, Cape Verde,^a Central African Republic, Comoros, Democratic Republic of the Congo, Djibouti, Eritrea, Ethiopia, Gambia, Guinea, Guinea-Bissau, Haiti, Kiribati, Lesotho, Liberia, Madagascar, Malawi, Maldives, Mali, Mauritania, Mozambique, Niger, Rwanda, Samoa, Sao Tome and Principe, Senegal, Sierra Leone, Sudan, Tuvalu, Uganda, United Republic of Tanzania, Vanuatu and Zambia.

The priority projects vary among countries, according to the countries' specific vulnerabilities and the adverse effects of climate change, variability and extremes that they are experiencing. Cross-sectoral projects as well as projects applicable to individual sectors have been identified, including for the following sectors: food security; agriculture; fisheries and livestock; coastal zones and marine ecosystems; disaster management; early warning and forecasting; education and training; energy; health; infrastructure; insurance; terrestrial ecosystems; tourism; and water resources.

The Least Developed Countries Fund (LDCF) is designed to support projects addressing the urgent and immediate adaptation needs of least developed countries (LDCs) as identified by their NAPAs. To date, as detailed in the LDCF progress report,^b 19 NAPA projects have been approved and five are under consideration. LDC Parties are also seeking bilateral funding from other funding sources.

^a Cape Verde graduated from the list of LDCs, as of December 2007.

^b <http://www.gefweb.org/uploadedFiles/Documents/LDCFSCCF_Council_Documents/LDCFSCCF5_November_2008/LDCF.SCCF.5.Inf.3%20Progress%20Report.pdf>.

A. Cross-sectoral work

1. Relevant work undertaken by individual entities in the United Nations system

17. The United Nations **General Assembly**⁶ and the Secretary-General have generated a sense of urgency and strong commitment for the United Nations system to deliver on adaptation to climate change through the series of initiatives undertaken, including: the high-level event *The Future in our Hands: Addressing the Leadership Challenge of Climate Change*, on 24 September 2007;⁷ the thematic debate *Addressing Climate Change: The United Nations and the World at Work*, on 11–12 February 2008;⁸ the informal meeting *Global Private Investments and Climate Change*, on 9 June 2008;⁹ the informal meeting *Climate Change and the Most Vulnerable Countries – the Imperative to Act*, on 8 July 2008;¹⁰ and the Secretary-General's remarks to the ministerial meeting on *Reducing Disaster Risks in a Changing Climate*, on 29 September 2008.¹¹ It is hoped that the United Nations system will respond both in terms of coordinated operational support and in terms of contributing to achieving an effective outcome at COP 14 in Poznan, Poland, in December 2008, and at COP 15, in Copenhagen, Denmark, in December 2009.

18. The **United Nations Delivering as One**¹² is a coordinated effort by the United Nations system to streamline its work and deliver as one in the areas of development, humanitarian assistance and the environment. The aim is for the normative and analytic expertise, operational and coordination capabilities, and the advocacy role of the United Nations to be more effectively brought together at the country, regional and global levels. Member States should shape the governance structures, the funding framework and the business practices to make this work. Regarding adaptation, the approach entails close cooperation among the United Nations organizations and agencies for building scientific and technical capacity, managing investment and infrastructure components, supporting adaptation measures and facilitating an effective integration of global environmental concerns into the development policy frameworks at the country level. Furthermore, the Delivering as One framework advocates that it is in the shared interest of the United Nations to have institutions that enable collective response to the threats of environmental degradation and that promote support mechanisms, such as training and capacity-building, mainstreaming and financial assistance. The coordination also aims to support the efforts of countries, in particular developing countries, to strengthen their capacities at all levels in order to prepare for and respond rapidly to natural disasters.

19. As part of its climate change work, the **UN Chief Executives Board (CEB)**¹³ places emphasis on adaptation planning on a global, regional and national scale, including work in a range of sectors: energy; agriculture and fisheries; water; oceans; forestry; health; transport; disaster risk reduction; population and human settlements; education; and public awareness-raising. The CEB activities are aimed at supporting Member States as they determine their national priorities, strategies and policies for adaptation, as well as their sectoral policy options for integrated sustainable development. Current efforts at strengthening the United Nations system's ability to deliver as one are critical in this effort.

20. Under the leadership of the Secretary-General, the CEB, with its High-level Committee on Programmes Climate Change Group, has initiated a process to bring together the strengths of all the

⁶ <<http://www.un.org/ga>>.

⁷ <<http://www.un.org/climatechange/2007highlevel>>.

⁸ <<http://www.un.org/ga/president/62/ThematicDebates/themclimatechange.shtml>>.

⁹ <<http://www.un.org/ga/president/62/ThematicDebates/gpicc.shtml>>.

¹⁰ <<http://www.un.org/ga/president/62/ThematicDebates/ccact.shtml>>.

¹¹ <<http://www.un.org/News/Press/docs//2008/sgsm11841.doc.htm>>.

¹² <<http://www.unsystemceb.org/oneun>>.

¹³ <<http://www.unsystemceb.org>>.

organizations of the United Nations system in coordinated action to meet the challenges of climate change. The objective of the work of the CEB is twofold: to assist Member States at national, regional and global levels in their efforts to address the impacts of climate change, with adaptation as one of the priorities; and to support the process for international agreement under the Convention (see box 2).

Box 2. High-level Committee on Programmes: coordinated United Nations system action on climate change – adaptation focus area

Adaptation is identified as a key issue by the United Nations System Chief Executives Board (CEB), especially for least developed countries, small island developing States and countries in Africa affected by drought, desertification and floods. The CEB has recognized that it is very important to respond to the priorities identified by Parties and to bridge the implementation gap on adaptation. The CEB is working to facilitate adaptation through the implementation of existing mandates at the national and international levels and through support to long-term cooperative action under the Convention.

As a result of the experience of the United Nations in the adaptation area, the CEB has identified a number of key messages:

(a) There is a need for priority actions to address vulnerability, especially for the most vulnerable countries and regions. Priority actions include: increased financial resources for practical adaptation solutions at household and community levels; national capacity development in key areas such as vulnerability analysis and emergency response systems; improved natural resource management and environmental conservation; disaster risk reduction; and emergency preparedness and response strategies.

(b) There is a heightened recognition of the fact that the effects of climate change are increasing the risk of disaster and are placing additional burdens on the humanitarian and development systems at all levels. Promotion of a comprehensive disaster risk reduction approach that includes preparedness must be a key component of climate change adaptation and development that safeguards humanitarian and development action.

(c) Adaptation activities should be generally compatible with and complementary to international development objectives, including the United Nations Millennium Development Goals (e.g. poverty reduction, gender equality, biodiversity and water conservation), so that synergies can be pursued in implementing their objectives.

(d) The development and deployment of clean technologies and processes can assist developing and developed countries alike in addressing climate change and achieving economic and social development.

The United Nations Development Group collaborates with the other pillars of the CEB, especially the High-level Committee on Programmes (HLCP), and is responsible for supporting coordination of United Nations agencies at the country level.

The Inter-Agency Standing Committee (IASC) members, as requested by its Working Group in June 2008, are considering a range of issues on adaptation to climate change that are relevant for the work of the HLCP in this area. These include: the definition of a shared understanding about the main areas of concern and the definition of proposals for appropriate terminology and typology on migration and displacement and climate change; the consideration of the need for an analysis of operational and analytical gaps on climate change and migration and displacement in the context of the humanitarian response; and provision by the IASC to provide input into the process of the UNFCCC, particularly in relation to adaptation, disaster risk reduction, displacement and the overall consequences of climate change.

21. The **United Nations Development Programme (UNDP)**¹⁴ has five regional offices and more than 160 national offices. It is uniquely positioned to help developing countries better cope with climate change by supporting adaptation efforts in three ways: integrating climate change risks into

¹⁴ <<http://www.undp.org/climatechange/adapt>>.

United Nations programming; integrating climate change risks into national development policies, plans and strategies; and identifying financing opportunities for adaptation initiatives (see para. 154).

22. UNDP views the issue of climate change adaptation from a developmental perspective, in that the adverse effects of climate change are challenges to development and the achievement of the MDGs. The UNDP Human Development report 2007/2008 is entitled *Fighting Climate Change: Human Solidarity in a Divided World*.¹⁵

23. Guided by its climate change strategy, UNDP focuses on climate risk 'hot spots' (where both vulnerability to climate change and climate hazards are highest) in order to enable climate-resilient development to be built upon a goal of pro-poor and pro-growth adaptation that supports sustainable economic development and livelihoods. UNDP objectives are the reduction of climate vulnerabilities and improvement of adaptive capacity, and the integration of climate change risks into national planning and poverty reduction efforts. Success will be measured through indicators and targets that convey measurable, systemic and sector-wide policy changes. UNDP has submitted three action pledges to the Nairobi work programme.¹⁶

24. UNDP supports multiple initiatives to assist countries in planning adaptation through development:

- (a) UNDP convenes the United Nations Development Group (UNDG) and co-chairs the UNDG Task Team on Climate Change and Environmental Sustainability with the United Nations Environment Programme (UNEP). The Task Team works to support the coordination of climate change activities at the country level. UNDP is also in the process of incorporating climate risk screening guidelines into Programmes and operations policies and procedures;
- (b) Through the UNDP Bureau for Crisis Prevention and Recovery, the Environment and Energy Group is promoting integrated climate risk management approaches that cover both disaster risk reduction and climate change adaptation. There are two ongoing initiatives: (i) Activities are under way in five pilot countries to integrate climate change into United Nations and UNDP development assistance at the global, regional and national levels; (ii) the Climate Risk Management project, which supports capacity development in four countries to analyse risks related to climate variability and change and to help define risk;
- (c) Through the GEF, UNDP supports the implementation of adaptation projects worth about USD 82 million. Its portfolio of projects covers a range of national, regional and global interventions in over 50 countries across all regions. Some projects of note are supported by the LDCF (USD 39.5 million), the Special Climate Change Fund (USD 28.1 million), and the GEF Trust Fund Strategic Priority on Adaptation (USD 14.4 million). UNDP has supported 31 LDCs in the preparation of their NAPAs as well as the implementation of NAPA priority projects through the LDCF. Also through the GEF, UNDP has now supported over 100 second national communications, including those of Brazil, China and India;
- (d) As part of the Supporting Integrated and Comprehensive Approaches to Climate Change Adaptation in Africa programme, UNDP will assist 21 countries in implementing integrated and comprehensive adaptation actions and resilience plans. The USD 92.1

¹⁵ <<http://hdr.undp.org/en/reports/global/hdr2007-2008>>. See also youth version of the 2007-2008 Human Development Report <<http://hdr.undp.org/en/humandev/learnmore/title,12016,en.html>>.

¹⁶ <<http://unfccc.int/4478.php>>.

million initiative is funded by the Government of Japan and seeks to ensure that national development processes incorporate climate change risks and opportunities in order to secure development gains under a changing climate. UNDP helps countries establish an enabling environment and develop the capacity required to design, finance, implement and monitor long-term and cost-effective adaptation policies and plans;

- (e) UNDP, together with UNEP and other partners, has developed a USD 70 million programme: Towards Carbon Neutral and Climate Change Resilient Territories. UNDP is establishing a service platform that local decision makers and planners can use to identify, formulate and implement strategies and various adaptation and mitigation options in the context of local/regional development. Over five years, UNDP will seek to provide training, assist regions in the preparation of their Territorial Climate Change Strategy and Investment Plans, and support project formulation and implementation;
- (f) UNDP also undertakes projects in capacity-building, climate risk reduction, the integration of climate knowledge into development planning, and community-based adaptation.

25. UNDP has published a set of resources to assist countries in developing adaptation strategies, policies and plans:

- (a) UNDP, in partnership with the secretariat, UNEP, the World Bank and the GEF secretariat, developed the Adaptation Learning Mechanism (ALM) to support evolving efforts to integrate adaptation to climate change in development planning, by providing a knowledge-sharing platform that accelerates the process of learning through experience. The ALM draws on experiences on the ground and features tools and practical guidance to meet stakeholders' needs;¹⁷
- (b) The UNDP Adaptation Policy Framework¹⁸ comprises nine technical papers that outline a structured approach to formulating and implementing adaptation strategies, policies and measures;¹⁹
- (c) Country portfolio analysis identifies climate change risks and adaptation opportunities;²⁰
- (d) The Monitoring and Evaluation Framework describes goals and objectives for vulnerability reduction and building of adaptive capacity in six thematic areas (water, agriculture, health, disaster risk reduction, natural resources and coastal zones) in support of the MDGs. The framework includes standard indicators and sample outcomes and indicators for thematic areas;²¹
- (e) Operational guidance that describes impact projections by region (drawing on the Fourth Assessment Report (AR4) of the Intergovernmental Panel on Climate Change (IPCC)) and outlines development challenges and opportunities in six thematic areas for adaptation.²²

26. UNDP has also developed climate risk profiles that provide country-level (or sub-national level in the case of large countries) climate change projections from climate model outputs assessed in the AR4.

¹⁷ <<http://www.adaptationlearning.net>>.

¹⁸ <http://www.undp.org/gef/adaptation/climate_change/APF.htm>.

¹⁹ <<http://www.undp.org/climatechange/adapt/apf.html>>.

²⁰ Address request to: <adaptation@undp.org>.

²¹ <<http://www.undp.org/climatechange/adapt/program.html>>.

²² <<http://www.undp.org/climatechange/adapt/program.html>>.

27. The **United Nations Environment Programme (UNEP)**²³ operates at international, regional and national level and is represented around the world by six regional offices (Africa, Asia and the Pacific, Europe, Latin America and the Caribbean, North America, and West Asia) with its head office in Nairobi, Kenya. UNEP also works with many partners, including United Nations entities, international organizations, national governments, non-governmental organizations (NGOs), business, industry, the media and civil society. Its mission is "to provide leadership and encourage partnership in caring for the environment by inspiring, informing, and enabling nations and peoples to improve their quality of life without compromising that of future generations".²⁴

28. UNEP defines its work on adaptation to climate change as meeting the twin needs of vulnerable countries for environment protection and economic development and assisting them in integrating adaptation into their multi-faceted planning and deliberative processes. Three pillars have been identified: (1) building adaptive capacity of the developing world; (2) increasing ecosystem resilience and reducing the risk of climate-related disasters and conflicts; and (3) mobilizing and managing knowledge for adaptation policy and planning. UNEP project managers are developing these pillars in order to ultimately integrate climate-risks and adaptation into all UNEP projects. The aim of UNEP is for adaptation planning, financing and cost-effective preventive actions to be increasingly incorporated into national development processes that are supported by scientific information, integrated climate impact assessments and local climate data.

29. UNEP is working to mainstream climate change into the UNDG Development Assistance Framework²⁵ and other national planning processes. It is working to encourage scientists, communities and policymakers to integrate climate proofing into energy, disaster management and forest policies. UNEP has prepared a UNEP-wide climate change strategy and is in the process of preparing a climate change adaptation action plan. It is also setting up a Collaborating Programme for Climate Adaptation with the Stockholm Environment Institute.

30. UNEP aims to advance methodological work and knowledge creation, including through the second phase of the Assessment of Impacts and Adaptations to Climate Change²⁶ (AIACC) programme. The first phase of the AIACC programme, implemented over the course of the past six years, has been successfully completed with case studies in 46 developing countries and regional assessments in Africa, Asia, Latin America and small island developing States (SIDS). The AIACC project has helped to increase the capacity in developing countries for identifying and in some cases testing adaptation options against the impacts of climate change. The UNEP handbook on *Methods for Climate Change Impact Assessment and Adaptation Strategies* (Version 2.0)²⁷ offers a generic framework for assessing and responding to the problems of sea level rise and climate change. UNEP supports the preparation and implementation of NAPAs.

31. The UNEP Medium-Term Strategy for the period 2010–2013, approved by its Governing Council and Global Ministerial Environment Forum and in line with UNEP's mandate, is aimed at strengthening and focusing UNEP's response to six cross-cutting thematic priorities: (1) climate change; (2) disasters and conflicts; (3) ecosystem management; (4) environmental governance; (5) harmful substances and hazardous waste; and (6) resource efficiency – sustainable consumption and production. There are many interlinkages and positive synergies between the six cross-cutting thematic priorities and it is hoped that, where appropriate, UNEP will achieve co-benefits, for example through the linkages between sustainable ecosystem management and climate change adaptation.

²³ <<http://www.unep.org/themes/climatechange/FocalAreas/Adaptation.asp>>.

²⁴ <<http://www.unep.org/Documents.Multilingual/Default.asp?DocumentID=43>>.

²⁵ <<http://www.undg.org/index.cfm?P=232>>.

²⁶ <<http://www.aiaccproject.org>>.

²⁷ <<http://dare.ubvu.vu.nl/bitstream/1871/10440/1/f1.pdf>>.

32. UNEP also produces Global Environment Outlook (GEO) reports, which provide assessments of the interactions between environment and society. The most recent publication is GEO-4.²⁸ The report assesses environmental change and how it affects people's security, health, social relations and material needs (human well-being) and development in general, including major atmospheric environmental issues, most notably the global challenge of climate change, and the decline in the health of ecosystems and the services that they provide. One of its key messages is that adaptation to anticipated climate change is now a global priority.

33. The **National Communications Support Programme (NCSP)**²⁹ is jointly managed by UNDP and UNEP, and is funded by the GEF. The NCSP provides support to more than 130 developing countries as they prepare second (or third) national communications under the Convention. Together with the implementing agencies, the NCSP provides technical and policy guidance on vulnerability and adaptation assessment and linking climate risks with national development priorities.

34. UNDP and UNEP are also piloting adaptation measures in eight developing countries under the One United Nations strategy, and are assisting the world's poorest countries to reduce vulnerability and develop 'climate proof' economies in areas ranging from infrastructure development to agriculture and health.

35. The **Office of the United Nations High Commissioner for Refugees (UNHCR)**³⁰ has a presence in over 120 countries. The Organization recognizes that climate change – and the multiple natural disasters it will engender – will in all certainty add to the scale and complexity of human mobility and displacement. As the refugee agency of the United Nations, with responsibilities and expertise in the area of forced displacement, UNHCR has been working through the Inter-Agency Standing Committee (IASC) to deepen understanding of the likely typologies of movements, the most appropriate terminology to use, and how to fill legal and operational gaps (see box 2).

36. UNHCR has been actively encouraging more reflection on the humanitarian and displacement challenges that climate change will generate. It is likely that most of the displacement caused by climate change, manifested for example in natural disasters, will remain internal. UNHCR is progressing work to develop the legal framework for the protection of internally displaced persons so as to incorporate displacement resulting from natural disasters.³¹ Internally displaced persons are already being assisted through a consensual division of labour (cluster approach) as part of United Nations humanitarian reform. It is equally likely that multiplication of natural disaster scenarios will test the efficacy of this approach and may call for new paradigms and models of cooperation. Some cross-border movement scenarios may be dealt with within the existing international refugee framework, which has proved to be flexible over the past decades; but others may require new approaches, premised upon international solidarity and responsibility-sharing.

37. The **United Nations Department of Economic and Social Affairs (UN-DESA)**³² promotes and supports international cooperation to achieve development for all, and assists governments in agenda-setting and decision-making on development issues at the global level. UN-DESA provides a broad range of analytical products and policy advice that serve as valuable sources of reference and decision-making tools for developed and developing countries, particularly in translating global commitments into national policies and action and in monitoring progress towards the internationally agreed development goals, including the MDGs. UN-DESA, like UNDP, views climate change as a sustainable development

²⁸ <<http://www.unep.org/geo/geo4/media>>.

²⁹ <<http://ncsp.undp.org>>.

³⁰ <<http://www.unhcr.org>>.

³¹ See Guiding Principles on Internal Displacement <http://www.reliefweb.int/ocha_ol/pub/idp_gp/idp.html>.

³² <<http://www.un.org/esa/desa/climatechange/index.html>>.

challenge, linked firmly to the broader development agenda, including the MDGs, poverty reduction and other internationally agreed goals. UN-DESA focus areas in adaptation include economic risk reduction, SIDS, investment flows and finance, LDCs, water resources management and indigenous peoples. UN-DESA assists governments to increase capacities to design and implement national sustainable development strategies. It supports intergovernmental bodies and negotiations in order to further an integrated approach to the United Nations development agenda and achieve a renewed focus on implementation, since climate change is currently at the top of this agenda.

38. UN-DESA provides support to the **Commission on Sustainable Development (CSD)**.³³ The work of the CSD focuses on the poverty aspects of the impacts of climate change and how this affects sustainable development, especially for countries with the least adaptive capacity, such as LDCs and SIDS. The CSD coordinates the Partnerships for Sustainable Development,³⁴ which have a number of projects dealing directly with adaptation to climate change.

39. The context for the CSD is the implementation of Agenda 21,³⁵ the Johannesburg Plan of Implementation³⁶ and the Barbados Programme of Action for Sustainable Development of Small Island Developing States,³⁷ and the impacts of climate change on poverty in particular, and how these impacts affect sustainable development. The CSD publications entitled *The Trends in Sustainable Development* and *The Trends in Sustainable Development – Africa Region* discuss vulnerabilities to climate change, which can inform in regional planning for adaptation.

40. The **Regional Commissions of the United Nations Economic and Social Council (ECOSOC)**³⁸ (Economic Commission for Africa (ECA), Economic Commission for Europe (ECE), Economic and Social Commission for Asia and the Pacific (ESCAP), Economic Commission for Latin America and the Caribbean (ECLAC), and the Economic and Social Commission for Western Asia (ESCWA)) have developed approaches to evaluate the economic and social impacts of climate change and these are complemented by the analysis of its environmental impacts. These approaches are intended to facilitate the assessment of the overall consequences of climate change for sustainable development, particularly from a regional perspective. The Regional Commissions attach importance to facilitating regional dialogues to promote greater awareness and innovative development policy options in order to be able to respond to the climate change challenges, including ensuring appropriate financing sources in a manner consistent with a low-carbon, energy-efficient future. In all of these areas, the Regional Commissions can achieve synergy with other multilateral and regional forums, including the UNFCCC. The Regional Commissions are actively implementing initiatives to assist countries and regions adapt to climate change.

41. The ECA³⁹ with the African Union Commission (AUC) and the African Development Bank (AfDB) and with support from a number of other sources are jointly implementing the Climate for Development in Africa Programme⁴⁰ (ClimDev–Africa). This is an African development programme to integrate climate risk management into pertinent policy and decision processes throughout the continent. ClimDev–Africa aims to enhance economic growth and progress towards the MDGs through mitigating the vagaries of climate variability and climate change, and aims to ensure that development achievements already gained are climate resilient in the longer term. It is envisaged as a three-phase programme over

³³ <<http://www.un.org/esa/sustdev/csd/policy.htm>>.

³⁴ <<http://www.un.org/esa/sustdev/partnerships/partnerships.htm>>.

³⁵ <<http://www.un.org/esa/sustdev/documents/agenda21/index.htm>>.

³⁶ <http://www.un.org/esa/sustdev/documents/WSSD_POI_PD/English/POIToc.htm>.

³⁷ <<http://www.un.org/esa/sustdev/sids/sidstbc.htm>>.

³⁸ <<http://www.un.org/ecosoc/about/subsidiary.shtml>>.

³⁹ <<http://www.uneca.org>>.

⁴⁰ <http://www.uneca.org/eca_programmes/sdd/climate.htm>.

an 11-year period. The ECA also co-organized, in partnership with the International Development Research Centre's Climate Change Adaptation in Africa (CCAA) Programme, an inception workshop for a regional capacity-building programme on research on climate change in Africa. This workshop paved the way for concrete projects on participatory action research, knowledge sharing and training on climate change adaptation. As a follow-up to this partnership, the ECA is preparing a collaborative project for economic and social studies as well as peer learning on climate change with the CCAA.

42. The **ECE**⁴¹ is working on adaptation to climate change in the water sector. Under the ECE Convention on the Protection and Use of Transboundary Watercourses and International Lakes (Water Convention), a document titled "a Guidance on Water and Climate Adaptation" is currently being drawn up and should be finalized and formally adopted at the next Meeting of the Parties to the Water Convention in November 2009.⁴² In the process of developing the Guidance a survey was conducted among countries in the ECE region that are members of the European Environment Agency⁴³ and a workshop on adaptation to climate change was held in July 2008 in Amsterdam, the Netherlands.⁴⁴ The workshop addressed institutional, policy, legal, scientific and financial aspects of adaptation in the water sector, including cross-cutting issues such as education.

43. The ECE also manages a joint programme on forestry and timber with the Food and Agriculture Organization of the United Nations (FAO), which promotes sustainable forest management in the region. This programme, which focuses on information collection and exchange, provides a policy forum for discussing relevant issues. In October 2008, the plenary session of the European Forest Week on climate change and forestry identified the need to develop a climate change adaptation strategy and follow-up action for its implementation. It emphasized the need for a coherent intersectoral approach and better communication. The ECE was asked to collect information and perform the analysis for countries, which it is hoped will be used in developing multi-level and cross-sectoral approaches to adaptation with partners.

44. **ESCAP**⁴⁵ focuses its work on regional cooperation on three main thematic areas poverty reduction, managing globalization and tackling emerging social issues, all of which are interrelated with climate change. ESCAP emphasizes regional cooperation as a means to deal with issues including: issues that all countries or a group of countries in the region face, which necessitate countries learning from each other; issues that benefit from regional involvement or multi-country involvement; issues that are transboundary in nature or that would benefit from collaborative intercountry approaches; and issues that are of a sensitive or emerging nature and require further advocacy and negotiation. Dividing work on regional cooperation into three thematic areas is coherent with the cooperation directed at climate change and adaptation. The most vulnerable countries, such as SIDS, are allocated much importance within ESCAP, and various statements have been released by the organization with regard to these pertinent issues.

45. Since the fifth Ministerial Conference Environment and Development in 2005, ESCAP has promoted an environmentally sustainable economic growth ('Green Growth') approach as a practical tool for achieving sustainable development as well as a strategy for responding to global efforts for mitigation and adaptation to climate change. In particular, ESCAP takes proactive and concrete measures to serve as the regional platform for policy dialogue for forging regional perspectives on the post 2012 climate framework and for enhancing common knowledge of the region on new policy options on climate action in the context of sustainable development. Because Asia is the region with the world's highest level of

⁴¹ <<http://www.unece.org>>.

⁴² <<http://www.unece.org/env/documents/2008/wat/wg1/ece.mpwat.wg.1.2008.8.e.pdf>>.

⁴³ <<http://www.unece.org/env/water/meetings/Water.and.Climate/workshop/Questionnaire-E-final.doc>>.

⁴⁴ <http://www.unece.org/env/water/meetings/water_climate_workshop.htm>.

⁴⁵ <<http://www.unescap.org>>.

human casualties caused by natural disasters, ESCAP recently intensified its work on developing an integrative approach to disaster reduction and climate change resilient society.

46. **ECLAC**⁴⁶ is carrying out a series of climate change initiatives. One of these is a study of the economics of climate change in the Caribbean to review policy and provide country-by-country assessments of climate change impacts. The project will consist of three phases, the first of which establishes the scope and feasibility of carrying out a study on the costs and benefits of taking action on climate change adaptation, as well as the cost-effectiveness of mitigation in the Caribbean compared with a 'business as usual' scenario. This phase is also aimed at supporting initial actions to alert policymakers and various key constituencies in the Caribbean to the urgency of the climate change challenge. The second phase is expected to provide individual country assessments of the impacts of climate change on Caribbean countries and the third phase is aimed at broadening these assessments by incorporating multiplier effects caused by regional interdependence and intended to ultimately feed into policy recommendations for countries and regional bodies. It is hoped that the study will also enhance partnership building among the various regional bodies engaged in climate change related research and policy analysis in the Caribbean and will outline the costs and benefits of needed related policy responses in terms of both mitigation and adaptation.

47. **ESCWA**⁴⁷ is helping to develop the Arab Framework Action Plan on Climate Change to enhance the capacity of Arab countries to take appropriate measures for addressing climate change. Adaptation elements of the programme include: preparation of vulnerability assessments, development of adaptation strategies in a number of sectors, and preparation and implementation of disaster risk reduction strategies. ESCWA also assists in integrating vulnerability assessment, development and adaptation measures in the water sector in the national integrated water resource management strategies of its member States.

48. The **UNFCCC** secretariat, following specific mandates, has developed a number of resources for adaptation planning and implementation. These include the Compendium on methods and tools to evaluate impacts of, and vulnerability and adaptation to, climate change,⁴⁸ designed to be used as a reference document to identify available frameworks and tools for assessing vulnerability and adaptation. It provides users with key information about available frameworks and tools, special features of each framework or tool and information about how to obtain documentation, training or publications supporting each tool. The Compendium will be updated during the second phase of the Nairobi work programme. The UNFCCC database on local coping strategies⁴⁹ is designed to facilitate the transfer of coping strategies and mechanisms, and knowledge and experience from communities that have adapted to specific hazards or climatic conditions to communities that may be starting to experience such conditions as a result of climate change. The adaptation practices interface⁵⁰ provides information on and links to adaptation work being carried out worldwide. It is hoped that the interface will evolve over the next year to become an expanded search tool for information on adaptation practices.

49. The **United Nations Conference on Trade and Development (UNCTAD)**⁵¹ focuses on the economic, trade and social impacts of climate change. UNCTAD is concerned about the adverse impacts of climate change on developing countries and the significant economic costs related to inaction. As a result, UNCTAD deals with, inter alia, trade-related aspects of competition in climate change policies; trade, development gains and investment opportunities arising as climate change measures are adopted;

⁴⁶ <<http://www.eclac.org>>.

⁴⁷ <<http://www.escwa.un.org/index.asp>>.

⁴⁸ <<http://unfccc.int/2674.php>>.

⁴⁹ <<http://maindb.unfccc.int/public/adaptation>>.

⁵⁰ <<http://unfccc.int/4555.php>>.

⁵¹ <<http://www.unctad.org/Templates/StartPage.asp?intItemID=4342>>.

and compatibility issues between climate policy and trade rules. At the Trade Commission on 26 March 2007, UNCTAD member States agreed that climate change response measures should not prevent developing countries from achieving their economic growth and poverty reduction objectives.

50. The **Commission on the Status of Women (CSW)**⁵² convened an interactive expert panel on 28 February 2008 to examine the emerging issue of gender perspectives on climate change. Participants emphasized that the international climate change negotiation process and climate change policies at the national level must adopt the principles of gender equality at all stages, including research, analysis and design and implementation of mitigation and adaptation strategies. In particular, it was suggested that action should be taken to include gender mainstreaming into all mitigation and adaptation policies, including gender impact assessments and gender-responsive budgeting. The use of gender-sensitive indicators and criteria for analysing the impacts of policies was also called for. Participants noted that practical tools would have to be created to integrate gender equality into climate change policies and evaluate their impact.

51. The **Office of the United Nations High Commissioner for Human Rights (OHCHR)**⁵³ has highlighted the need to incorporate the human rights approach into policymaking on adaptation to climate change.⁵⁴ The human rights approach involves looking at the lives of those who are the most adversely affected, and urging governments to integrate their human rights obligations into policies and programmes to deal with climate change and urging the international community to assist the process. The United Nations Human Rights Council has mandated OHCHR to conduct a study on the relationship between climate change and human rights. This will be made available during its tenth session in March 2009.⁵⁵

52. Member States have communicated to the United Nations that security issues are an important concern when planning for adaptation to climate change. This has been discussed in the **Pacific Small Island Developing States** submission to the United Nations,⁵⁶ and during the **United Nations Security Council** debate on the impact of climate change on 17 April 2008.⁵⁷

53. The **World Bank Group**⁵⁸ has recently adopted a framework entitled Development and Climate Change: A Strategic Framework for the World Bank Group, which serves to guide and support the operational response of the World Bank Group to new development challenges posed by global climate change, and it is hoped that it will help the World Bank Group maintain the effectiveness of its core mission of supporting growth and overcoming poverty. The top priority is to build collaborative relations with development partners and provide them with customized demand-driven support through its various instruments, including financing assistance, technical assistance and policy dialogue. Under the strategic framework, it is hoped that the World Bank, in partnership with other funders, will, inter alia, help some of the most vulnerable countries increase resilience to climate risks using new adaptation financing, and will facilitate customized applications of climate risk insurance products.

54. The regions and departments of the World Bank are already engaged in the development and implementation of regional climate change strategies and business plans, as well as a wide range of

⁵² <<http://www.un.org/womenwatch/daw/csw>>.

⁵³ <<http://www.ohchr.org/EN/NewsEvents/Pages/ClimateChangeIP.aspx>>.

⁵⁴ <<http://www.un.org/climatechange/pdfs/bali/ohchr-bali07-19.pdf>>.

⁵⁵ HRC resolution 7/23 of 28 March 2008, OP 3.

⁵⁶ <<http://www.ohchr.org/EN/NewsEvents/Pages/ClimateChangeIP.aspx>>.

⁵⁷ <http://www.tongausun.org/index.php?option=com_content&task=view&id=46&Itemid=27>.

⁵⁸ <www.worldbank.org/climateconsult>.

climate change programmes and projects relating to the adaptation agenda. A description of these projects can be found in the World Bank Project Database.⁵⁹

2. Relevant work undertaken through collaboration

55. The **United Nations Development Group (UNDG)**,⁶⁰ one of the three pillars of the CEB and convened by UNDP, assists country teams in moving towards achieving the MDGs. Some countries, such as the SIDS, focus more on adaptation; in these cases the UNDG also focuses its work on adaptation. The UNDG is also working with UNEP on its development assistance framework (see para. 29 above) and hosts the United Nations Task Team on Climate Change and Environmental Sustainability, co-chaired by UNDP and UNEP.

56. The 15 centres of the **Consultative Group on International Agricultural Research (CGIAR)**,⁶¹ with offices around the world and their numerous partners in government and civil society, have been helping farmers cope with the effects of variable and severe weather for nearly three decades. In particular, they seek ways to protect water and other natural resources under extreme weather conditions and other pressures, develop crop varieties that are adapted to harsh climates, and identify policy and institutional innovations that better enable countries and communities to cope with these conditions. Through this work, CGIAR researchers have generated a wealth of improved crop germplasm, knowledge, technologies, methods and policy analysis, which can lessen the vulnerability of marginalized rural people and places and thus help adapt to climate change through more sustainable management of crops, livestock, soils, water, forests, fisheries and biodiversity.

57. Examples of work by CGIAR centres include: development, by the International Crops Research Institute for the Semi-Arid Tropics, of science-based strategies that empower vulnerable communities to adapt to climate change in the dry tropics of the world;⁶² and the Tropical Forests and Climate Change Adaptation⁶³ project, that contributes to the limited understanding of climate change impacts over forests and methodologies to assess vulnerability and plan for adaptation for these systems, supported by the Centre for International Forestry Research and the Tropical Agriculture Centre for Research and Higher Education.

58. The **International Fund for Agricultural Development (IFAD)**⁶⁴ has a long and well-established partnership with the CGIAR that focuses on developing and testing locally specific, stress tolerant crop varieties to respond to the resource base, capacities and production priorities of small farmers.

59. The **World Trade Organization (WTO)**⁶⁵ is considering the challenges of climate change. In the Marrakesh Agreement Establishing the World Trade Organization, members States established a clear link between sustainable development and disciplined trade liberalization in order to ensure that market opening goes hand in hand with environmental and social objectives. In the current round of negotiations, the Doha Round, members went further in their pledge to pursue a sustainable development path by launching the first multilateral trade and environment negotiations. A number of aspects of the Doha Round have a direct bearing on sustainable development and can therefore contribute positively to efforts to adapt to climate change. The Rio Conventions and UNEP have been granted observer status within the Trade and Environment Committee of the WTO.

⁵⁹ <<http://www.worldbank.org/projects>>.

⁶⁰ <<http://www.undg.org>>.

⁶¹ <<http://www.cgiar.org>>.

⁶² <<http://www.icrisat.org>>.

⁶³ <http://www.cifor.cgiar.org/trofcca/_ref/home/index.htm>.

⁶⁴ <<http://www.ifad.org>>.

⁶⁵ <http://www.wto.org/english/tratop_e/envir_e/climate_challenge_e.htm>.

60. The United Nations is assisting in establishing an **inter-agency Climate Change Centre for Pacific Island Countries**, to enable coordinated United Nations support to Pacific Island countries and regional organizations, in partnership with the Government of Samoa. Noting that climate change impacts are already being felt, the United Nations is committed to supporting Pacific Island countries with respect to mitigation, adaptation and disaster risk reduction, taking into account their special vulnerability.

61. The **World Bank Group**⁶⁶ is collaborating with partners on a range of adaptation initiatives. The Kiribati Adaptation Project (a collaboration between UNDP, Asian Development Bank (ADB), UNEP, donor agencies and the World Bank) aims to reduce climate vulnerability in Kiribati and to mainstream adaptation into national economic planning by the Pacific Islands countries. In Africa, scaling up sustainable land management is being carried out within the TerrAfrica framework (the World Bank working in cooperation with African governments, New Partnership for Africa's Development (NEPAD), regional and sub-regional organizations, the United Nations Convention to Combat Desertification (UNCCD) secretariat, the UNCCD Global Mechanism, the GEF, IFAD, FAO, UNDP, UNEP, AfDB, the European Commission, bilateral donors and civil society). The World Bank and UNDP in cooperation with other partners (facilitated by GEF co-finance) are collaborating in a number of African basins, such as the Nile, Senegal, and Niger basins, to identify vulnerabilities and hotspots so as to facilitate coordinated and/or collaborative development actions that will decrease vulnerability to climate variability and change through a range of actions. Collaborating with UNDP and FAO, the World Bank is developing field projects that focus either exclusively or partly on adaptation to climate change in connection with preparation of the GEF-supported Country Partnership Programme for India, the Sustainable Land and Ecosystem Management (SLEM). SLEM aims to improve communities' economic conditions while at the same time halting and reversing the trend of natural resource degradation. The Kenyan Adaptation to Climate Change in Arid Lands project, supported by the World Bank through the GEF and the International Development Association, assists Kenya in adapting to climatic changes that threaten the sustainability of rural livelihoods. The World Bank is also facilitating access to climate risk insurance and reinsurance markets (index-based weather insurance country programmes for crops or livestock, regional parametric insurance against hurricanes and earthquakes, and catastrophe bonds).

B. Work in specific areas and/or sectors

1. Science, assessment, monitoring and early warning

62. The **Intergovernmental Panel on Climate Change (IPCC)**⁶⁷ is a scientific intergovernmental body set up by the World Meteorological Organization (WMO) and UNEP. The role of the IPCC is to assess on a comprehensive, objective, open and transparent basis the latest scientific, technical and socio-economic literature produced around the world relevant to the understanding of the risk of human-induced climate change, its observed and projected impacts and options for adaptation and mitigation. IPCC reports are neutral with respect to policy, although they need to deal objectively with policy-relevant scientific, technical and socio-economic factors. They are of a high scientific and technical standard and aim to reflect a range of views, expertise and wide geographical coverage. The IPCC includes adaptation as one of its key aspects of work.

63. The main activity of the IPCC, in accordance with its mandate and as reaffirmed in its various decisions, is to prepare at regular intervals comprehensive assessment reports of scientific, technical and socio-economic information relevant for the understanding of human-induced climate change, potential impacts of climate change and options for mitigation and adaptation. Four assessment reports have been

⁶⁶ <<http://www.worldbank.org>>.

⁶⁷ <<http://www.ipcc.ch>>.

completed in 1990, 1995, 2001 and 2007 (see box 3). In addition, the IPCC produces special reports, methodology reports, technical papers and supporting material, often in response to requests from the COP or from other environmental convention processes.

64. The IPCC Working Group II assesses the vulnerability of socio-economic and natural systems to climate change, negative and positive consequences of climate change, and options for adapting to it. Its latest report *Climate Change 2007: Impacts, Adaptation and Vulnerability*⁶⁸ was launched on 6 April 2007 as part of the Fourth Assessment Report (AR4) of the IPCC. The report assesses the latest scientific, environmental and socio-economic literature on impacts, adaptation and vulnerability. It provides a comprehensive analysis of how climate change is affecting natural and human systems, what the impacts may be in the future and how far adaptation and mitigation can reduce these impacts. It also takes into consideration the inter-relationship between adaptation and mitigation, and the relationship between climate change and sustainable development. The report contains chapters on specific systems and sectors (water resources, ecosystems, food and forests, coastal systems, industry and human health) and regions (Africa, Asia, Australia and New Zealand, Europe, Latin America, North America, Polar Regions and Small Islands).

65. Other relevant publications by the IPCC⁶⁹ include: the *IPCC Technical Paper VI: Climate Change and Water* (2008); *IPCC-TGCIA Guidelines on the Use of Scenario Data for Climate Impact and Adaptation Assessment* (1999); *The Special Report on Regional Impacts of Climate Change: An Assessment of Vulnerability* (1997); *IPCC Technical Guidelines for Assessing Climate Change Impacts and Adaptations* (1994).

66. The Data Distribution Centres,⁷⁰ coordinated by the **IPCC Task Group on Data and Scenario Support for Impact and Climate Analysis (TGICA)**,⁷¹ offer access to baseline and scenario data for representing the evolution of climatic, socio-economic and other environmental conditions and offer guidance on the application of this data for impacts, vulnerability and adaptation assessments. Further guidance concerning sea level scenarios, socio-economic scenarios and the analysis of observed impacts is expected to be produced in the near future. The IPCC has provided three action pledges to the Nairobi work programme pending approval and the availability of appropriate funding.⁷²

Box 3. The Assessment Reports of the Intergovernmental Panel on Climate Change and the UNFCCC process

The First Assessment Report (AR1) of the Intergovernmental Panel on Climate Change (IPCC) gave a scientific basis for the growing concern about global change of the climate produced by human activity and prompted recommendations to launch negotiations on an international agreement on climate change. Negotiations were initiated and, two years later, the United Nations Framework Convention on Climate Change (UNFCCC) was adopted at the Earth Summit in Rio de Janeiro in 1992. The AR1 concluded that in the absence of major preventive and adaptive actions by humanity, significant and potentially disruptive changes in the Earth's environment would occur.

The Second Assessment Report (AR2) included a new area of work, the socio-economic aspects of climate change. Its comprehensive assessment of climate change science provided impetus to the UNFCCC process and opened the door for work towards the Kyoto Protocol, which was adopted in 1997. The AR2 states that the efficiency and cost-effective use of adaptation strategies will depend upon the

⁶⁸ <<http://www.ipcc.ch/ipccreports/ar4-wg2.htm>>.

⁶⁹ <<http://www.ipcc.ch/ipccreports/index.htm>>.

⁷⁰ <<http://www.ipcc-data.org>>.

⁷¹ <http://ipcc-wg1.ucar.edu/wg1/wg1_tgica.html>.

⁷² <<http://unfccc.int/4107.php>>.

availability of financial resources, technology transfer and cultural, educational, managerial, institutional, legal and regulatory practices, both domestic and international in scope.

The Third Assessment Report (AR3) concluded that adaptation is inevitably needed and it is recommended as a necessary strategy to complement mitigation efforts. The AR3 contributed to increasing the importance of adaptation in the UNFCCC process and helped to achieve related work, such as the launch of the Nairobi work programme on impacts, vulnerability and adaptation to climate change.

The Fourth Assessment Report of the IPCC (AR4) dispelled many uncertainties about climate change and clearly stated that warming of the climate system is now unequivocal. The report states that adaptation is necessary to address the impacts of climate change that are already occurring, and that more extensive adaptation than is currently occurring is required to address future vulnerability to climate change. The report also states that sustainable development can reduce vulnerability to climate change, and that climate change could impede nations' abilities to follow sustainable development pathways. The AR4 provided the scientific basis for the agreements, including the Bali Action Plan (decision 1/CP.13), reached by Parties at the thirteenth session of the Conference of the Parties (COP).

Following the publication of the AR4, The Norwegian Nobel Committee awarded the Nobel Peace Prize for 2007 to be shared, in two equal parts, between the IPCC and Mr. Albert Arnold (Al) Gore Jr. for their efforts to build up and disseminate greater knowledge about man-made climate change and to lay the foundations for the measures needed to counteract such change.

There is now an expectation for the process under the UNFCCC to provide political answers that adequately respond to the science, with the Bali Action Plan as part of this process that will continue until Parties achieve a meaningful agreed outcome at COP 15 to address climate change post-2012.

67. The **World Meteorological Organization (WMO)**⁷³ is the authoritative voice of the United Nations system on the state and behaviour of the Earth's atmosphere, its interaction with the oceans, the climate it produces and the resulting distribution of water resources. WMO has regional offices for Africa, Asia and the South-West Pacific, the Americas and Europe. The regional offices supervise related WMO offices in the field. WMO organizes and supports international research and cooperation for the establishment of networks to enhance the ability of its 188 member States and Territories to improve weather, climate, water and environmental observations, prediction, service delivery and scientific assessments of regional and global environmental conditions.

68. The WMO programmes that monitor the atmosphere, oceans and rivers provide the crucial time-sequenced information that underpins the forecasts of climate variability and warnings of hydro-meteorological hazards. The WMO global network consists of the National Meteorological and Hydrological Services (NMHSs) of 188 member countries, 40 Regional Specialized Meteorological Centres and three World Meteorological Centres. The NMHSs are an integral part of informed knowledge-based decision-making on adaptation providing local expertise, regional climate information, and open exchange of knowledge and data. WMO is also facilitating the establishment of Regional Climate Centres, as complementary and supportive entities of the NMHSs. The WMO Strategic Plan (approved by the fifteenth World Meteorological Congress, in May 2007 in Geneva, Switzerland), through a number of strategic initiatives, is expected to deliver more accurate, timely, useful and cost-effective weather, climate, water and environmental information and services to meet national and global needs and contribute to the improved protection of life, livelihoods, safety and well-being of citizens.

⁷³ <http://www.wmo.int/pages/summary/progs_struct_en.html>. See also the WMO submission to the Nairobi work programme at <http://unfccc.int/files/adaptation/sbsta_agenda_item_adaptation/application/pdf/wmo_concept_paper.pdf>.

69. WMO assists its member States on vulnerability and adaptation assessment through its scientific and technical programmes: World Weather Watch Programme,⁷⁴ World Climate Programme (WCRP),⁷⁵ Atmospheric Research and Environment Programme,⁷⁶ Applications of Meteorology Programme,⁷⁷ Hydrology and Water Resources Programme,⁷⁸ Education and Training Programme,⁷⁹ Technical Cooperation Programme,⁸⁰ Regional Programme,⁸¹ WMO Space Programme,⁸² and Disaster Risk Reduction Programme (DRR).⁸³ For example, WCRP aims to improve understanding of the climate system and aims to apply that understanding for the benefit of societies coping with climate variability and change, among other things, in order to enhance the ability of countries to adapt to climate change. Work includes climate coordination activities, global climate impact assessment and response strategies, World Climate Data and Monitoring Programme and the World Climate Applications and Services Programme, including the Climate Information and Prediction Service Project.

70. WMO implements a comprehensive integrating framework for all aspects of international climate-related programmes, including data collection and application and climate system research. Following the conference on secure and sustainable living and the social and economic benefits of weather; climate- and water-related services, held in Madrid, Spain, from 19 to 22 March 2007, which focused on users and decision makers, members unanimously adopted the Madrid Conference Statement and Action Plan.⁸⁴ The overall objective of the plan is “to achieve, within five years, a major enhancement of the value to society of weather, climate and water information and services in response to the critical challenges represented by rapid urbanization, economic globalization, environmental degradation, natural hazards and the threats from climate change”. The World Climate Conference-3 is to be held from 31 August to 4 September 2009 under the auspices of WMO with the overall theme of “Climate Prediction for Decision Making: Focusing on Seasonal to Inter-annual Timescales”. It is expected to advance and improve the provision of climate predictions and information and facilitate linking science-based climate information with climate risk management and adaptation to climate variability and change. WMO co-sponsors a number of entities, including the IPCC (see box 3), WCRP (see para. 69), the Global Climate Observing System (GCOS) (para. 71), the Global Ocean Observing System (GOOS) (para. 72) and the Global Terrestrial Observing System (GTOS) (para. 73). WMO has been the principal provider of the scientific and technical information underpinning IPCC assessments, through the long-term and user-driven operational systems developed by the Organization and the NMHSs. All WMO programmes provide support to the IPCC assessments, including those on adaptation to climate change, while making extensive use of IPCC findings in their respective activities. WMO is a partner of the Nairobi work programme and has submitted two action pledges.⁸⁵

71. The **Global Climate Observing System (GCOS)**⁸⁶ is an internationally coordinated system of observing systems and networks for meeting national and international needs for climate observations. It is co-sponsored by WMO, the Intergovernmental Oceanographic Commission of the United Nations Educational, Scientific and Cultural Organization (UNESCO/IOC), UNEP and the International Council

⁷⁴ <http://www.wmo.int/pages/prog/www/index_en.html>.

⁷⁵ <http://www.wmo.int/pages/prog/wcp/index_en.html>.

⁷⁶ <http://www.wmo.ch/pages/prog/arep/index_en.html>.

⁷⁷ <http://www.wmo.ch/pages/prog/amp/index_en.html>.

⁷⁸ <http://www.wmo.ch/pages/prog/hwrp/index_en.html>.

⁷⁹ <http://www.wmo.ch/pages/prog/etr/index_en.html>.

⁸⁰ <http://www.wmo.ch/pages/prog/tco/index_en.html>.

⁸¹ <http://www.wmo.ch/pages/prog/rp/index_en.html>.

⁸² <http://www.wmo.ch/pages/prog/sat/index_en.html>.

⁸³ <http://www.wmo.ch/pages/prog/drr/index_en.html>.

⁸⁴ <http://www.wmo.int/pages/themes/wmoprod/documents/madrid07_ActionPlan_web_E.pdf>.

⁸⁵ <<http://unfccc.int/4367.php>>.

⁸⁶ <<http://www.wmo.int/pages/prog/gcos>>.

for Science (ICSU) and consists of the climate-relevant components of the WMO Integrated Global Observing Systems, the UNESCO/IOC-led GOOS, the FAO-led GTOS, and other established global observing systems. It works on climate system monitoring, climate change detection and monitoring the impacts of and the response to climate change, especially in terrestrial ecosystems and mean sea level; collecting climate data for application to national economic development; and research towards improved understanding, modelling and prediction of the climate system (see box 4). It serves as the climate observation component of the Global Earth Observation System of Systems.

Box 4. An example of interaction between the UNFCCC process and actions by the United Nations system

By its decision 11/CP.9, the Conference of the Parties requested the Global Climate Observing System (GCOS) secretariat to coordinate, under the guidance of the Global Climate steering committee, the development of a 5 to 10-year implementation plan for the integrated global observing systems for climate. The Implementation Plan for the Observing System for Climate in Support of the UNFCCC^a addresses the requirements identified in the Second Report on the Adequacy of Global Observing Systems for Climate in Support of the UNFCCC.^b

The Implementation Plan for the Observing System for Climate in Support of the UNFCCC specifies the actions required to implement a comprehensive observing system for the essential climate variables (atmospheric, terrestrial, oceanic) that would address Articles 4 and 5 of the Convention.^c If fully implemented it will enable member States to:

- (a) Characterize the state of the global climate system and its variability;
- (b) Monitor the forcing of the climate system, including both natural and anthropogenic;
- (c) Support the attribution of the causes of climate change;
- (d) Support the prediction of global climate change;
- (e) Enable projection of global climate change information down to regional and local scales;
- (f) Enable the characterization of extreme events important in impact assessment and adaptation and to the assessment of risk and vulnerability.

For the thirtieth session of the Subsidiary Body for Scientific and Technological Advice, the GCOS secretariat is preparing a comprehensive report that will outline progress on implementing the actions contained in the GCOS Implementation Plan for the Observing System for Climate in Support of the UNFCCC.

The GCOS Regional Workshop Programme, established in response to a mandate by the Conference of the Parties,^d ran between 2000–2006. Ten regional action plans were finalized. Facilitation of follow-up implementation activities including the evolving Climate for Development in Africa Programme (see para. 41 of this document). Additional implementation activities are planned in other regions.

GCOS is working jointly with the World Climate Research Programme and the World Meteorological Organization on a proposal for a programme of three interlinked regional workshops to address the need for regional observations and climate modelling in support of adaptation. These workshops would assess, among other things, the adequacy of regional observations and models and provide advice on how model outputs could best be used to develop adaptation strategies. A pilot project on climate observations and regional modelling in support of climate risk management and sustainable development

is under way for the Eastern African region, with the aim of enhancing regional capacity in the use of data and model projections, including understanding of limitations, for adaptation planning.

^a Implementation Plan for the Global Observing System for Climate in Support of the UNFCCC, <http://www.wmo.int/pages/prog/gcos/Publications/gcos-92_GIP_ES.pdf>.

^b The Second Report on the Adequacy of the Global Observing Systems for Climate in Support of the UNFCCC, GCOS-82, April 2003 (WMO/TD No. 1143).

^c <<http://unfccc.int/resource/docs/convkp/conveng.pdf>>.

^d Decision 5/CP.5.

72. The **Global Ocean Observing System (GOOS)**,⁸⁷ sponsored by UNESCO/IOC, UNEP, WMO and ICSU, is a permanent global system for observations, modelling and analysis of marine and ocean variables to support operational ocean services worldwide. GOOS is working with national agencies and regional networks to provide accurate descriptions of the present state of the oceans, including living resources, continuous forecasts of the future conditions of the sea for as far ahead as possible and the basis for forecasts of climate change.

73. The **Global Terrestrial Observing System (GTOS)**,⁸⁸ sponsored by FAO, UNEP, UNESCO, WMO and ICSU, facilitates access to information on terrestrial ecosystems so that researchers and policymakers can detect and manage global and regional environmental change, including adaptation planning. GTOS is currently working on a framework for the preparation of guidelines and standards for climate-related terrestrial observations. In addition, GTOS is finalizing an assessment of the status of the development of standards for undertaking observations of the 13 terrestrial Essential Climate Variables;⁸⁹ such observations are essential to better understand climate conditions and assess vulnerability for planning activities.

74. The **UNEP Division of Early Warning Assessment (DEWA)**⁹⁰ is represented in six regions (Africa, Asia and the Pacific, Europe, Latin American and the Caribbean, North America, and West Asia) by its six regional coordination offices. It provides the world community with improved access to meaningful environmental data and information to help increase the capacity of governments to use environmental information for decision-making and action planning for sustainable human development. DEWA maintains the GEO data portal,⁹¹ which holds the data sets used by UNEP and its partners in the GEO report and other integrated environment assessments. DEWA also maintains PEARL (Prototype Environmental Assessment and Reporting Landscape), which provides governments and the international community with a comprehensive overview from both a thematic and geographic perspective of the various environmental assessments completed or being undertaken globally. It serves as a tool to provide timely, relevant, reliable and targeted information on what is being done by various institutions to keep the global environmental situation under continuous review.

75. **UNEP GRID-Arendal**⁹² provides environmental information, communications and capacity-building services for information management and assessment. Adaptation-related initiatives include coordinating the Many Strong Voices Programme,⁹³ which brings together a unique group of partners from the Arctic and SIDS to ensure the well-being, security and sustainability of coastal communities in

⁸⁷ <<http://www.ioc-goos.org>>.

⁸⁸ <<http://www.fao.org/gtos>>.

⁸⁹ <<http://www.fao.org/gtos/doc/pub52.pdf>>.

⁹⁰ <<http://www.unep.org/DEWA/index.asp>>.

⁹¹ <<http://geodata.grid.unep.ch>>.

⁹² <<http://www.grida.no>>.

⁹³ <<http://www.manystrongvoices.org>>.

the Arctic and SIDS in response to ongoing and anticipated climate change. UNEP GRID-Arendal is also part of the Polar View Strategic Services Group, which promotes the use of satellites for the public good and in support of public policy in the area of sustainable development, marine safety and environment. UNEP GRID-Arendal is a partner in the Nairobi work programme and has contributed action pledges on both of these initiatives.⁹⁴

76. The **World Food Programme (WFP)**⁹⁵ assists governments in putting in place and in strengthening early warning and emergency preparedness systems at the national and regional level, for example for the Permanent Inter-State Committee for Drought Control in the Sahel and the Southern African Development Community. The WFP also co-chairs the Inter-Agency Standing Committee (IASC) Sub-Working Group on Emergency Preparedness and Contingency Planning and manages the IASC Humanitarian Early Warning Service website, a global early warning monitoring service.

77. The four international global environmental change research programmes of the **Earth System Science Partnership (ESSP)**⁹⁶ are the International Programme of Biodiversity Science, the International Geosphere–Biosphere Programme, International Human Dimensions Programme on Global Environmental Change (IHDP), and WCRP. They bring together researchers from diverse fields and from across the globe to undertake an integrated study of the Earth system, including its structure and functioning, the changes occurring to the Earth system because of climate change, and the implications of those changes for global and regional sustainability.

78. Examples of work undertaken under the ESSP include: the Global Environmental Change and Human Health project, which is developing adaptation strategies for reducing health risks; assessing the cost-effectiveness of adaptation strategies; and communicating results (especially to decision makers). WCRP,⁹⁷ sponsored by ICSU, WMO and UNESCO, aims to determine the predictability of climate and the effect of human activities on climate. WCRP has defined a strategic framework for 2005–2015 under the title of Coordinated Observation and Prediction of the Earth System.⁹⁸ Under this strategic framework, WCRP aims to determine which aspects of climate are predictable and how far in advance and for which regions they can be predicted. It is hoped that this information will provide invaluable input for climate risk management in both the public and private sectors, contribute to planning for sustainable development and form a basis for natural hazard disaster reduction and adaptation.

79. A major cross-cutting theme for the research of the IHDP,⁹⁹ which is sponsored by ICSU, the International Social Science Council and the United Nations University (UNU), is the focus on vulnerability and adaptation to climate change, such as their project on Global Environmental Change and Human Security.

⁹⁴ <<http://unfccc.int/4330.php>>.

⁹⁵ <<http://www.wfp.org>>.

⁹⁶ <<http://www.essp.org/index.php?id=10&L=en>>.

⁹⁷ <<http://wcrp.wmo.int/wcrp-index.html>>.

⁹⁸ <http://wcrp.ipsl.jussieu.fr/Documents/SF_COPEStlyerMarch05.pdf>.

⁹⁹ <<http://www.ihdp.unu.edu>>.

2. Food security, agriculture, forestry and fisheries

80. The **Food and Agriculture Organization of the United Nations (FAO)**¹⁰⁰ operates from five regional offices (Africa, Asia and the Pacific, Europe and Central Asia, Latin America and the Caribbean, and the Near East), nine sub-regional offices, five liaison offices and 78 country offices, in addition to its headquarters in Rome.

81. FAO promotes the continuing contribution of food and sustainable agriculture to the attainment of three global goals: (1) the reduction of the number of people suffering from hunger, progressively ensuring food security for all; (2) the elimination of poverty and the achievement of economic and social progress through increased food production, enhanced rural development and sustainable livelihoods; and (3) sustainable management and utilization of natural resources.

82. FAO support for adaptation to climate change includes: (1) developing an information base for action (for example data and statistics, analytical tools and models, crop forecasting and impact monitoring and information on risks related to climate variability and climate change); (2) building national and local capacities for disaster risk management, reduction and transfer with regard to extreme climate events; (3) working with sectoral ministries, communities and farmers to identify adaptation options that build on assessment and sustainable management of resources; (4) supporting linkages between global policy decisions on climate change in the context of the UNFCCC, sectoral policies, strategies and programmes relating to agriculture, forestry and fisheries (for example including mainstreaming into the national programmes for food security); and (5) supporting local adaptation action at community level (e.g. combining climate risk management and resilience building for livelihoods and ecosystems, supported by sectoral line ministries through research, extension and communication for development). FAO has provided six action pledges to the Nairobi work programme.¹⁰¹

83. By implementing national early warning systems for food security, FAO, as an integral part of its food security system, is able to provide technical and capacity-building support to the NMHSs to modernize the meteorological network and collect, analyse and disseminate climate-related information in the short, medium and long term for improving adaptation strategies at local level.

84. FAO undertakes specific climate change projects within countries,¹⁰² supports the GTOS¹⁰³ secretariat and undertakes initiatives such as the Globally Important Agricultural Heritage Systems.¹⁰⁴ Its Climate Impact on Agriculture web resource¹⁰⁵ contains methodologies and tools for a better understanding and analysis of the effects of weather variability and climate on agriculture. Within the contexts of national adaptation strategies, FAO catalyses and promotes, through new programmes and projects implemented by sectoral line agencies, adaptive capacities at community level regarding climate variability and change for sustainable livelihoods in the agricultural sector. Its activities include: (1) capacity-building and technology transfer for adaptation to current climate variability and extreme events; (2) identifying options for local adaptation on the basis of integrating traditional knowledge and existing local adaptation practices to climate risk and scientific knowledge; (3) building institutional and technical capacities at various levels needed to address and promote location-specific adaptation; (4) addressing longer-term issues of climate change through social mobilization, awareness-raising and field

¹⁰⁰ <<http://www.fao.org/climatechange/49357/en>>.

¹⁰¹ <<http://unfccc.int/4206.php>>.

¹⁰² See the following FAO publications: *Climate Change & Food Security: a Framework Document* (2007), <<http://www.fao.org/forestry/media/15538/0/0/>>; *FAO at Work 2006-2007: Adapting to Change on our Hungry Planet* (2007), <<ftp://ftp.fao.org/docrep/fao/010/ai196e/ai196e00.pdf>>.

¹⁰³ <<http://www.fao.org/gtos>>.

¹⁰⁴ <<http://www.fao.org/SD/GIAHS>>.

¹⁰⁵ <<http://www.fao.org/nr/climpag>>.

testing of 'no regrets' technology adaptation options; (5) introducing long lead climate and flood/drought forecasting systems to promote proactive risk management strategies; (6) identifying lessons learned to inform decision makers about location-specific options for adaptation agriculture; and (7) promoting dialogue on ways of mainstreaming climate change adaptation into sectoral development plans.

85. The **International Fund for Agricultural Development (IFAD)**¹⁰⁶ works with rural poor people, governments, donors, NGOs and many other partners to focus on country and local specific solutions. Promoting adaptation to changing climatic conditions for poor rural people is part of the core business of IFAD, and this has been pursued by a substantial proportion of IFAD-supported projects over the past 30 years. In recent years, the focus on climate change adaptation has become more explicit and has increasingly been conducted in partnership with other agencies, such as the GEF. An example of IFAD/GEF-supported activities on climate change adaptation is a project in Sri Lanka implementing a community-based adaptation approach to enhance the resilience of key coastal ecosystems and to reduce the population's vulnerability to climate change impacts.

86. IFAD's approach to climate change is rooted in its Strategic Framework 2007–2010 that defines the organization's strategic objectives and the thematic areas of its work. IFAD's adaptation-related work is centred on the following four types of activities: (1) improvement of agricultural techniques and technologies; (2) community-based natural resources management; (3) livelihoods diversification to reduce risk; and (4) coping mechanisms and risk-preparedness with a focus on early warning systems and preparedness plans for both floods and droughts; and weather-induced risk management and hedging farmers against vulnerability. Examples of IFAD's activities in this last field include an index-based weather insurance pilot-project in China to assist rural poor farmers in addressing climate change by insuring rural poor people's income against weather hazards.

87. In 2008 IFAD undertook internal organizational changes to better address climate change. In particular, the mandate of the former Global Environment Facility Unit was broadened to become the Global Environment and Climate Change (GECC) Unit, responsible for operational and technical climate change matters within IFAD's Programme Management Department.

88. The **World Food Programme (WFP)**¹⁰⁷ is the United Nations frontline agency in the fight against global hunger. It has the capacity to respond to climate-related emergencies through a global logistical apparatus, global communications infrastructure and an extensive network of 76 country offices, 270 sub-offices and 9,000 staff in the field, often in high-risk settings including Darfur, the Congo and Afghanistan. The WFP's Strategic Plan 2008–2011 has a significant focus on climate change adaptation and disaster risk reduction. For example, the second of the five objectives of the WFP's Strategic Plan 2008–2011 is to prevent acute hunger and invest in disaster preparedness and mitigation measures, inter alia, through supporting adaptation to reduce vulnerability to disasters and climate change. The WFP's programmes and experience in adaptation include: risk management and risk reduction programme design and implementation, vulnerability analysis and early warning systems, and the implementation of community-based adaptation programmes to prepare for the increased risk of hunger associated with climate change.¹⁰⁸ The WFP has provided three action pledges under the Nairobi work programme.¹⁰⁹

89. The WFP's community-based adaptation programmes, often undertaken in partnership with other United Nations agencies, increase the resilience and adaptive capacity of households and communities through sustainable natural resource management, asset creation and the building of climate-proof

¹⁰⁶ <<http://www.ifad.org/climate>>.

¹⁰⁷ <<http://www.wfp.org>>.

¹⁰⁸ See FCCC/SBI/2008/MISC.9.

¹⁰⁹ <<http://unfccc.int/4111.php>>.

infrastructure. Every year, WFP reaches millions of beneficiaries through employment programmes (paying workers either cash or food), that are used to: build flood defences and small-scale irrigation systems; fix dunes to stop the desert encroaching onto agricultural land; plant trees to mitigate the impacts of floods and landslides; harvest water; and rehabilitate depleted land. In 2007 these programmes led to over 60 million trees being grown or planted in 35 countries. This means that the WFP has contributed to planting more than 5 billion trees throughout the course of its history, becoming the leading forester of the developing world.

90. The Vulnerability Analysis and Mapping Unit (VAM) of WFP monitors the food security situation of populations and assesses their vulnerability to events in order to identify who is at risk of hunger and malnutrition and to provide solutions, by providing either food or other forms of assistance. VAM undertakes in-depth assessments to understand the nature of food insecurity and the risks to livelihoods and monitors emerging food security problems. VAM's analyses support WFP decision-making in designing and managing emergency and development programmes. The information is crucial for targeting the poorest people and those most affected by food insecurity. VAM works in close collaboration with many partners worldwide. All activities are implemented jointly with governments, United Nations agencies such as FAO, UNICEF and the World Health Organization (WHO), local and international NGOs, universities and the private sector. These partnerships ensure a shared understanding of food security and common priorities for action.

91. For countries facing a serious food emergency, the FAO/Global Information and Early Warning System and WFP carry out joint Crop and Food Supply Assessment Missions. Their purpose is to provide timely and reliable information so that appropriate actions can be taken by the governments of the countries affected, the international community and other parties.

3. Water

92. The UNESCO **International Hydrological Programme (IHP)**¹¹⁰ coordinates an international scientific cooperative programme in water research, water resources management, education and capacity-building. Its activities address adaptation to climate change, including assessing the effects of climate change on: groundwater; surface watersheds; aquatic ecosystems and biodiversity; specific regions such as arid lands and urban conglomerations; and societies most vulnerable to sharp changes in water availability or quality. IHP also hosts the World Water Assessment Programme (WWAP),¹¹¹ which produces the United Nations World Water Development Report (WWDR),¹¹² the authoritative reference document of United Nations tracking the water-related MDGs. UNESCO provides secretariat support for the WWAP. The third edition of the WWDR, as endorsed by UN-Water, is due to be published in 2009 and its focus will be on climate change and water.

93. **UN-Water**¹¹³ is currently chaired by FAO and is made up of the United Nations agencies, programmes and funds that have a significant role in global water concerns. It also includes major partners, from outside the United Nations system, who cooperate in advancing progress towards the water-related goals of the 'Water for Life' Decade and the MDGs. UN-Water considers adaptation in terms of examining vulnerabilities to climate change. UNDP is the lead agency on water governance for UN-Water and is the lead author on water governance for the WWDR.

¹¹⁰ <<http://typo38.unesco.org/index.php?id=240>>.

¹¹¹ <<http://www.unesco.org/water/wwap>>.

¹¹² <<http://www.unesco.org/water/wwap/wwdr/index.shtml>>.

¹¹³ <<http://www.unwater.org>>.

94. The **Global Environment Facility (GEF)**¹¹⁴ International Waters Strategic Priorities for Freshwater projects aim to support the integration of adaptation into transboundary water governance processes.
95. The **Convention on Wetlands of International Importance especially as Waterfowl Habitat (Ramsar Convention)**¹¹⁵ emphasizes the importance of wetlands in climate change adaptation. At the Ramsar COP 10 (October–November 2008), Parties considered a number of draft resolutions for adoption, some of which include: the need for Parties to include ecosystem-based approaches in policy and decision-making that affect the wise use of wetlands; to increase recognition of and attention in decision-making to the significance of wetlands for climate change adaptation; to request the secretariat of the Ramsar Convention to work closely with the UNFCCC secretariat; and to develop guidance for the development of mutually supportive adaptation programmes.
96. The ninth session of the COP to the **Convention on Biological Diversity (CBD)**¹¹⁶ recognized the role of wetlands in climate change adaptation and mandated closer collaboration with the Ramsar Convention to further assess the contribution of biodiversity to climate change adaptation in peatlands and other wetlands.
97. **UNDP's** Water Governance Programme¹¹⁷ supports regional and global cooperation on shared water resources and assists countries' efforts to implement water governance reforms to improve the development and management of water resources and water supply and sanitation service delivery. UNDP assists countries and regional bodies in assessing and anticipating climate change impacts and vulnerabilities, including applying methodologies and decision support tools for systematically understanding the socio-economic and human development implications of climate change. It provides direct support to the development and implementation of, inter alia, pro-active adaptation policies and supports mainstreaming of climate change adaptation in national and regional development frameworks and instruments. Through its capacity-building programme Cap-Net, UNDP supports training and capacity-building on adaptation tools and measures in the water sector.
98. The **World Health Organization (WHO)** and the **United Nations Children's Fund (UNICEF)** set up the Joint Monitoring Programme¹¹⁸ in order to monitor progress towards Target 7c of the MDGs to reduce by half the number of people without access to safe drinking water and improved sanitation by the year 2015. The project aims to collect data from all countries on the provision of safe drinking water and improved sanitation and the level of access to these facilities in order to highlight the resources available to adapt to climate change.

4. Oceans and coastal areas

99. **UNESCO/IOC**¹¹⁹ is addressing adaptation to climate change and variability through: (1) increasing the understanding of the role of the oceans in climate variability and climate change; (2) contributing to the better prediction of the climate through ocean observation and process studies on regional and global scales; and (3) increasing understanding of the impacts of climate change and variability on marine ecosystems and their living resources. This is carried out through the promotion and intergovernmental coordination of ocean sciences, services, observations, data management and related activities, including transfer of technology and capacity-building at regional and global levels, as

¹¹⁴ <<http://www.gefweb.org>>.

¹¹⁵ <<http://www.ramsar.org>>.

¹¹⁶ <<http://www.cbd.int>>.

¹¹⁷ <<http://www.undp.org/water/index.html>>.

¹¹⁸ <<http://www.wssinfo.org/en/welcome.html>>.

¹¹⁹ <<http://ioc-unesco.org>>.

well as the consideration of integrated ocean and coastal zone management in line with UNESCO's priority for Africa.

100. UNESCO/IOC facilitates inter-agency coordination through the **UN-Oceans**¹²⁰ mechanism, and collaborates with UNEP in establishing a process for global reporting and assessment of the state of the marine environment. In the context of UN-Oceans, FAO developed and now hosts the United Nations Atlas of the Oceans. FAO also produces the biannual report The State of World Fisheries and Aquaculture, a comprehensive, objective and global view of capture fisheries and aquaculture.¹²¹ Through GOOS, UNESCO/IOC helps improve operational oceanography, weather and climate forecasts and monitoring and supports the sustained observing needs of the UNFCCC process. UNESCO/IOC has provided two action pledges to the Nairobi work programme.¹²²

101. Under the **CBD**, coral reefs are integrated into the programme of work on marine and coastal biological diversity. More recently, Parties to the CBD have agreed to take measures to manage coastal and marine ecosystems so as to maintain their resilience to extreme climatic events. Integrated marine and coastal area management approaches help to maximize the effectiveness of marine and coastal protected areas and networks, including strengthening adaptive capacity in coastal and marine areas.

5. Terrestrial ecosystems

102. **Many** of the programmes of work adopted under the **CBD** contain elements relating to adaptation such as: the identification of species and ecosystems vulnerable to the impacts of climate change; traditional and local knowledge; the application of the ecosystem approach to reduce the impacts of climate change on the conservation and sustainable use of biodiversity; and the development of enhanced information on the impacts of climate change on other threats to biodiversity (such as invasive alien species). Most recently, decision COP IX/16¹²³ gives proposals for the enhanced integration of climate change activities within all programmes of work of the CBD and urges Parties to integrate concerns relating to the impacts of climate change and adaptation activities on biodiversity within national biodiversity strategies and action plans. In this regard, a series of capacity-building workshops are expected to be convened in SIDS.

103. The CBD Technical Series No. 10 and No. 25 provide case studies on the integration of biodiversity considerations into climate change adaptation activities. The CBD has also recently mandated an Ad Hoc Technical Expert Group on Biodiversity and Climate Change, which, among other issues, will address adaptation in the context of biodiversity.

104. A number of countries have integrated biodiversity considerations into climate change adaptation planning, as shown in the CBD climate change database¹²⁴ which provides case studies on how countries are integrating biodiversity considerations within climate change adaptation planning. According to the lessons learned from the 34 case studies currently available, elements to consider in the implementation of adaptation plans include establishing clear climatic and environmental baselines, ensuring adequate data availability and selecting appropriate indicators of change. The database is also a resource for tools to monitor adaptation activities by a number of entities and facilitate evaluation of the actual impacts on biodiversity. Examples of successful adaptive management regimes are also presented.

¹²⁰ <<http://www.oceansatlas.org/www.un-oceans.org/Index.htm>>.

¹²¹ <<http://www.fao.org/fishery/sofia/en>>.

¹²² <<http://unfccc.int/4438.php>>.

¹²³ <<http://www.cbd.int/decisions/?dec=IX/16>>.

¹²⁴ <<http://adaptation.cbd.int>>.

105. One of the key instruments in the implementation of the **UNCCD**¹²⁵ are the national action programmes (NAPs), which are strengthened by action programmes on sub-regional (SRAP) and regional (RAP) level. NAPs are developed in the framework of a participative approach involving the local communities and spell out the practical steps and measures to be taken to combat desertification in specific ecosystems. Parties are encouraged to incorporate adaptation concerns into these programmes.

106. The UNCCD NAPs, SRAPs and RAPs include a range of adaptation activities. The UNCCD secretariat has launched a new web page¹²⁶ on the interrelationship between land and climate. The web page gives information on the role of soil in addressing adaptation issues and presents information on land and climate change, land degradation and poverty, energy security, food security, and UNCCD processes to address climate change. The ten-year strategic plan and framework adopted at UNCCD COP 7 emphasized the need to combat desertification through, inter alia, the rehabilitation of degraded land as a means of adaptation to climate change.¹²⁷

107. Work by the **Joint Liaison Group (JLG)**¹²⁸ of the three Rio Conventions (CBD, UNCCD and UNFCCC) aims to enhance cooperation and synergy between these Conventions. The JLG emphasises adaptation issues in its work and a recent publication highlights the work on adaptation under the frameworks of the Conventions.¹²⁹ The JLG highlighted in particular the relationship between NAPs under the UNCCD and NAPAs under the UNFCCC, and the potential to increase synergy in the implementation of the Convention in this regard. Parties to the UNCCD invited the JLG to provide advice on how to strengthen the links between these two programmes, including the CBD's national biodiversity strategies and action plans.

108. As part of the **Collaborative Partnership on Forests**,¹³⁰ an expert panel of leading scientists from around the world has been set up to assess relevant research and prepare a report for policymakers entitled "Forests and Climate Change Adaptation and Livelihoods".

109. **UNDP's** adaptation portfolio includes a number of programmes and projects that focus on climate change adaptation and ecosystem resilience (including threats to biodiversity, land degradation, and international waters). In addition to UNDP's Community Based Adaptation Project, UNDP is working on natural resource management and climate change risks in several countries. Initiatives largely focus on piloting risk reduction measures in priority regions, developing local capacities to integrate climate change concerns into ecosystem management processes, and developing and strengthening institutions to support the integration of climate change risks into natural resource management practices.

6. Health

110. The **World Health Organization (WHO)**¹³¹ is represented in 147 country offices, six regional offices (Africa, the Americas, Europe, the Eastern Mediterranean, South-East Asia and the Western Pacific) and at the headquarters in Geneva, Switzerland. WHO closely collaborates with countries and agencies within and outside the United Nations system, including governments and civil society, to develop capacity to assess and respond to health risks from climate change. WHO regional and country offices provide close relationships to the health sector within member States.

¹²⁵ <<http://www.unccd.int>>.

¹²⁶ <<http://www.unccd.int/science/soilandclimate/menu.php>>.

¹²⁷ <[http://www.unccd.int/php/document.php?ref=ICCD/COP\(8\)/10/Add.2](http://www.unccd.int/php/document.php?ref=ICCD/COP(8)/10/Add.2)>.

¹²⁸ <<http://unfccc.int/2533.php>>.

¹²⁹ <http://unfccc.int/resource/docs/publications/adaptation_eng.pdf>.

¹³⁰ <<http://www.fao.org/forestry/cpf/en>>.

¹³¹ <<http://www.who.int/globalchange/en>>.

111. In May 2008, the World Health Assembly adopted a decision on climate change and health that provides a normative framework of action for national governments and WHO to address linkages between health and climate change. The resolution calls for the health sector to scale up adaptation projects, raise global awareness of the impacts on health from climate change at national and international levels, and boost political attention and awareness.

112. WHO organized 10 interregional workshops on Human Health Impacts from Climate Variability and Climate Change between 2000 and 2008, in collaboration with WMO and UNEP. This series of workshops focused on climate sensitive and vulnerable nations within WHO regions in particular. As part of World Health Day 2008 activities and a global awareness-raising campaign, WHO produced the report entitled *Protecting Health from Climate Change: Report for World Health Day 2008*, highlighting the need for the strengthening of public health services as a central component of adaptation to climate change.

113. WHO is leading the health component of the MDG Fund projects on climate change adaptation (in China and Jordan), a global facility that aims to accelerate progress towards attainment of the MDGs. The German Federal Ministry for Environment is funding a seven-country initiative on protecting health from climate change in South-East Europe, Northern Russia and Central Asia (Albania, Kazakhstan, Kyrgyzstan, Russian Federation, Tajikistan, the former Yugoslav Republic of Macedonia and Uzbekistan). WHO, in partnership with UNDP and funded by the GEF, is developing a project on piloting climate change adaptation to protect human health under a changing and more variable climate.¹³² The project operates in seven countries (Barbados, Bhutan, China, Fiji, Jordan, Kenya and Uzbekistan) which show a wide variety of health vulnerabilities to climatic conditions. Further activities and projects, as well as adopted resolutions, include: Regional Frameworks for Action in all regions, Climate Change and Adaptation Strategies for Human health in Europe,¹³³ and the Pan European project on the prevention of extreme weather events, particularly heatwaves.¹³⁴

114. WHO has long-standing collaborations with many United Nations organizations, including the UNFCCC secretariat, FAO, WMO, UNDP, UNEP and other international and national agencies that are involved in adaptation to climate change. WHO has provided an action pledge to the Nairobi work programme.¹³⁵ It is currently developing a global strategy that outlines the overarching framework for the international response to protect health from climate change. This is being developed by WHO and partners in the health sector and is expected to be coordinated with the efforts of the United Nations system and other partner agencies.

115. The **Health and Environment Linkages Initiative (HELI)**¹³⁶ is a global effort by WHO and UNEP to support action by developing country policymakers on environmental threats to health. HELI activities include country-level pilot projects and refinement of assessment tools to support decision-making and promoting knowledge about health and environment linkages.

116. **UNEP** and **WHO** guidelines on adaptation and health include Methods of Assessing Human Health Vulnerability and Public Health Adaptation to Climate Change.¹³⁷

117. **UNICEF**¹³⁸ carries out a number of health-related adaptation initiatives. WASH (water, sanitation and hygiene) strategies contribute to the realization of children's rights to survival and

¹³² <<http://www.who.int/globalchange/climate/gefproject/en/index.html>>.

¹³³ <http://www.euro.who.int/globalchange/Assessment/20070403_1>.

¹³⁴ <<http://www.euro.who.int/globalchange/>>.

¹³⁵ <<http://unfccc.int/4586.php>>.

¹³⁶ <<http://www.who.int/heli/en>>.

¹³⁷ <http://www.euro.who.int/globalchange/Publications/20031125_1>.

¹³⁸ <http://www.unicef.org/wes/index_43084.html>.

development through support to national programmes that increase equitable and sustainable access to and use of safe water and basic sanitation services and promote improved hygiene. Service delivery that demonstrates improved sustainable adaptation approaches is being scaled up to marginalized communities, in schools and in pilot projects in 96 countries. UNICEF is the world's leading supplier of mosquito nets and has significantly increased its procurement and distribution in recent years as part of its integrated strategy to improve child survival, including in areas affected by malaria migration due to climate change, such as the East African Highlands. Together with its partners, UNICEF distributes mosquito nets using routine health services and campaign approaches. UNICEF works with ministries of health, NGOs and community and village health workers to develop local distribution systems.

7. Disaster risk reduction

118. The **International Strategy for Disaster Reduction (ISDR)**¹³⁹ system, endorsed by the United Nations, promotes and coordinates global efforts to reduce disaster risk and implement the Hyogo Framework for Action 2005–2015: Building the resilience of nations and communities to disasters (HFA).¹⁴⁰ The approach of the ISDR system is to advocate the use and scaling up of tools and measures to reduce disaster risk for adaptation and to encourage collaboration between disaster reduction and climate change managers, for instance by undertaking joint disaster risk reduction and adaptation planning and programming. Partners in the system¹⁴¹ engage in capacity-building of climate change and disaster risk actors, awareness-raising at community and national levels, advocacy with climate change delegates to promote the integration of the disaster risk reduction approach in international climate policy, and the production and dissemination of risk assessment and management tools. Examples of ISDR system collaborations include PreventionWeb,¹⁴² which is the portal for the ISDR system that provides information on knowledge, tools, practices, statistics and events to reduce disaster risk, and the joint Office for the Coordination of Humanitarian Affairs (OCHA), UNDP and ISDR Capacity for Disaster Reduction Initiative (CADRI), which offers countries assistance to plan capacity development initiatives.¹⁴³

119. The ISDR secretariat provides information and guidance on disaster risk reduction as a tool to manage climate risks and adapt to climate change, both to inform international policy deliberations and to assist governments and other parties to reduce climate-related vulnerabilities and risk. It undertakes global reviews of disaster risk and progress on risk reduction and facilitates the compilation, exchange, analysis and dissemination of good practices and lessons learned in disaster risk reduction. These are compiled in numerous publications and focus on such topics as floods, drought, gender and climate change. They link with poverty reduction, community-level action and the establishment of national programmes for disaster reduction. The ISDR secretariat also supports risk reduction planning through national platforms for disaster risk reduction, which are intersectoral multi-stakeholder committees. It also supports capacity-building for adaptation by contributing to the Nairobi work programme areas relating to methodologies, tools and practices.

¹³⁹ <<http://www.unisdr.org/eng/risk-reduction/climate-change/climate-change.html>>.

¹⁴⁰ Hyogo Framework for Action 2005-2015: Building the resilience of nations and communities to disasters <<http://www.unisdr.org/eng/hfa/hfa.htm>>.

¹⁴¹ ISDR system partners are: FAO; International Finance Corporation; International Labour Organization; International Telecommunication Union; Office for the Coordination of Humanitarian Affairs (OCHA); United Nations Centre for Regional Development; UNCCD; UNDP; UNESCO; IOC; UNEP; United Nations Institute for Training and Research (UNITAR); United Nations Human Settlements Programme (UN-HABITAT); United Nations University – Institute for Environment and Human Security (UNU-EHS); United Nations Volunteers; the World Bank; WFP; WHO; WMO; United Nations Office for Project Services.

¹⁴² <<http://www.preventionweb.net>>.

¹⁴³ <<http://www.unisdr.org/cadri>>.

120. The inter-agency group coordinated by ISDR in partnership with FAO, the International Federation of the Red Cross and Red Crescent Societies, the International Labour Organization, OCHA, UNDP, UNEP, UNESCO, UNICEF, WFP, WHO, WMO and the World Bank, is a concerted effort to contribute to international coordination and scaling up of action. The group acts as a platform for joint work programming among the participating organizations and for improving coherence and coordination with a view to better supporting countries as they implement the HFA.

121. **WMO**, through its Disaster Risk Reduction Programme, ensures the optimization of its global infrastructure and the integration of its core scientific capabilities and expertise into all relevant phases of disaster risk management at the international, regional and national levels, particularly related to risk assessment and early warning systems. WMO and NMHSs have the capability to develop and deliver critical products and services to the entire disaster risk management decision process. These include the multidisciplinary science to understand the vulnerability of communities to weather-, climate- and water-related hazards and hazards information for planning of emergency response and disaster mitigation/prevention. These systems operate alongside educational and capacity-building services that help ensure that nations can better meet national needs for hazard information. The DPM's strategic goals are being realized through an action plan implemented through national and regional projects involving WMO programmes, technical commissions, regional associations and partner organizations that assist member States in strengthening their capacities in disaster risk reduction.¹⁴⁴

122. **UN-OCHA**, within its mandate as the Emergency Relief Coordinator, has recently drafted an action plan designed to improve organizational capacity to prepare for, and respond to, the humanitarian implications of climate change. This work builds on UN-OCHA's global commitment to improve early warning and preparedness for response in line with the HFA.

123. Initial work by UN-OCHA prioritizes integrating climate change risk analysis into preparedness and contingency planning exercises. Pilot activities focus on 10–15 higher risk countries, with the goal of providing measurable increases in national preparedness capacity. This is complemented by targeted research, advocacy and policy development activities. In its coordination function, UN-OCHA has also actively encouraged the humanitarian IASC to highlight climate change as a key issue.

124. At the national level, pre-agreed mechanisms for supporting government-led coordinated responses to disasters exist in many areas and international systems, such as the United Nations Disaster Assessment and Coordination team,¹⁴⁵ can be drawn upon to assist in the management of extreme events. IASC/ISDR have already developed tools to support governments to meet their responsibilities as part of global efforts to reduce disaster risk and to strengthen resilience of communities. These frameworks are backed by existing global humanitarian funding mechanisms, including the Central Emergency Response Fund,¹⁴⁶ and the Consolidated Appeals Process.¹⁴⁷ None of these mechanisms are currently sufficient to meet the challenge of climate change adaptation, but their combined institutional knowledge and experience could be a key component in ensuring a timely, verifiable and accountable response to this issue.

¹⁴⁴ See WMO Submission to the Nairobi work programme for the work area climate-related risks and extreme events <<http://unfccc.int/resource/docs/2007/sbsta/eng/misc05.pdf>>.

¹⁴⁵ <<http://ochaonline.un.org/Coordination/FieldCoordinationSupportSection/UNDACSystem/tabid/1414/Default.aspx>>.

¹⁴⁶ <<http://ochaonline.un.org/Default.aspx?alias=ochaonline.un.org/cerf>>.

¹⁴⁷ <<http://ochaonline.un.org/cap2005/webpage.asp?Page=1243>>.

8. Population and human settlements

125. The **United Nations Populations Fund (UNFPA)**¹⁴⁸ operates at the global, regional, and country levels to incorporate population and reproductive health issues into national development plans and policies. To address climate change adaptation, UNFPA is examining the links between the impacts of climate change and a range of population-related issues, including urbanization, gender, reproductive health and internal and international migration. UNFPA is addressing adaptation by supporting policy-oriented research on the linkages between population and climate change, supporting data collection and analysis to inform climate change research and policy and supporting capacity-building activities.

126. UNFPA is working with the International Institute for Environment and Development to examine the links between growing urbanization in low- and middle-income countries and climate change. UNFPA is developing a four-year programme on urbanization focused on future urban growth and the need to assist governments in preparing for it. UNFPA is also centrally involved in capacity-building around census data collection. It has begun mobilizing support for the 2010 round of census-taking and plays a lead role in advocating and mobilizing support for this undertaking by governments. In many countries, UNFPA helps develop capacity in technical aspects of the process, including cartography, data collection and processing, and data analysis and dissemination. UNFPA is also building capacity for the integration of geographic data collection and analysis essential for the identification of locations and populations that are most vulnerable to the impacts of climate change.

127. UNFPA is conducting extensive training and capacity-building workshops at the country level for the humanitarian response to natural disasters, including climate change related events. These workshops focus on resource mobilization and contingency planning for a wide array of emergencies, including storms and weather patterns associated with climate change. To date, four workshops have been held with participants from 50 countries.

128. UNFPA is collaborating with FAO to examine the relationship between population and food security, taking into account, among others factors, the impact of climate change. UNFPA and FAO are due to host a workshop on food security, population, and gender, focusing specifically on policy implications.

129. The **United Nations Human Settlements Programme (UN-HABITAT)**¹⁴⁹ has three main regional offices (Africa and the Arab States, Asia and the Pacific, and Latin America and the Caribbean) and is based in approximately 140 countries. It is mandated by the United Nations General Assembly to promote socially and environmentally sustainable towns and cities with the goal of providing adequate housing for all. The Agency has worked with more than 100 cities in integrating environmental issues in planning and management processes. UN-HABITAT is launching a Sustainable Urban Development Network, (SUD-Net) to help local governments strengthen climate change mitigation and adaptation measures in developing countries and LDCs. SUD-Net works with existing global networks through regional, national and local level partnerships and advances strategic partnerships through collaborations with bodies such as UNEP, the International Council for Local Environmental Initiatives, UNDP, IPCC, the World Bank, UNFCCC secretariat and WMO.

130. Given the important role of local authorities, UN-HABITAT is currently implementing the Cities in Climate Change Initiative in four pilot cities: Esmeraldas (Ecuador), Kampala (Uganda), Maputo (Mozambique) and Sorsogon (Philippines). Five additional cities in Africa are joining the initiative. The initiative utilizes relevant resources and tools such as the participatory environmental planning and management methodology, while applying the latest geographic information system satellite technology

¹⁴⁸ <<http://www.unfpa.org>>.

¹⁴⁹ <<http://www.unhabitat.org>>.

to help towns and cities conduct vulnerability and risk mapping surveys. It develops new adaptation guidelines for local authorities, promotes innovative approaches and solutions such as energy efficient buildings through partnerships with the private sector, and helps bridge the gap between research and practice. Using a global portal and local urban knowledge arenas, it promotes knowledge sharing, curriculum development and information exchange. The Agency supports cities to engage in policy dialogues, action planning and implementation of climate change strategies; targeted tool development; capacity-building; training; and raising public awareness about climate change problems, while highlighting good practices.

9. Tourism

131. The **World Tourism Organization (UNWTO)**¹⁵⁰ is the leading international organization in the field of tourism and plays a central and decisive role in promoting the development of responsible, sustainable and universally accessible tourism, paying particular attention to the interests of developing countries. With its headquarters in Madrid, UNWTO carries out extensive research, capacity-building and technical assistance activities, advocating the sustainable development of tourism in international and national policy processes, with climate change as a priority issue.

132. UNWTO has a focus on adaptation; tourism is a highly climate-dependent economic sector that is vulnerable to the direct and indirect impacts of climate variability and change. The UNWTO report entitled *Climate Change and Tourism – Responding to Global Challenges*,¹⁵¹ commissioned by UNWTO, UNEP and WMO, provides a synthesis of the state of knowledge about current and likely future impacts of climate change on tourism destinations around the world and an overview of policy and management responses of adaptation to climate change.

133. Since the first International Conference on Climate Change and Tourism organized in Djerba, Tunisia, in 2003, UNWTO has collaborated with other United Nations agencies and international organizations on adaptation to climate change, in particular the UNFCCC secretariat (Nairobi work programme), UNEP, WMO, UNDP, IPCC and the World Economic Forum. The Second International Conference on Climate Change and Tourism, held in Davos, Switzerland, in October 2007, and its key outcome, The Davos Declaration, initiated the so-called Davos Declaration Process, including a series of high-level events at the UNWTO Ministerial Summit on Climate Change, and a special session at the UNWTO General Assembly in 2007, leading to a contribution by the tourism sector at the United Nations Climate Change Conference in Bali, Indonesia, in 2007. UNWTO released a policy document entitled *Tourism, Development and Climate Change: Understanding, Anticipating, Adapting, Participating in the Common Effort*.¹⁵² UNWTO also made special contributions to the IPCC AR4 on the interrelation between tourism and climate change adaptation.

134. Under the Davos Declaration Process, UNWTO focuses on policy implementation and practical applications in the tourism sector, as well as their dissemination through seminars, workshops, publications and meetings with tourism stakeholders. The guidebook entitled *Climate Change Adaptation and Mitigation in the Tourism Sector: Frameworks, Tools and Practices*,¹⁵³ published in connection with an applied training seminar organized with UNEP and Oxford University, provides tools for increasing adaptive capacity, including tailoring adaptation processes to the tourism sector. UNWTO is assisting the integration of tourism, also as a means of economic diversification, into national adaptation strategies through pilot projects in SIDS. It has set up a special web portal on climate change

¹⁵⁰ <<http://www.unwto.org/wtd/index.php>>.

¹⁵¹ <<http://www.unwto.org/sdt/news/en/pdf/climate2008.pdf>>.

¹⁵² <http://www.unwto.org/frameset/frame_sustainable.html>.

¹⁵³ <<http://www.unep.fr/scp/publications/details.asp?id=DTI/1047/PA>>.

and tourism¹⁵⁴ and recently established a knowledge exchange mechanism for applied climate solutions in the tourism sector.¹⁵⁵

10. Education and training

135. The **United Nations Institute for Training and Research (UNITAR)**¹⁵⁶ Climate Change Programme supports country-driven capacity-building initiatives and serves as a rapid and efficient implementation tool for work of the UNFCCC with GEF implementing agencies and other bilateral donors. It assists in enhancing or creating regional pools of expertise in the developing world, giving priority to NGOs and research institutions in developing countries, that have expertise in climate change and are committed to building capacity at the national and regional levels. It promotes the work of partner organizations, assists in their fund-raising activities and facilitates efficient and secure communication between partners.

136. The UNITAR Climate Change Programme activities on planning for adaptation include Climate Change Capacity Development for partner institutions¹⁵⁷ and technical assistance to UNFCCC focal points in LDCs to produce NAPAs.¹⁵⁸

137. The UNITAR Advancing Capacity to Support Climate Change Adaptation¹⁵⁹ project brings stakeholders and scientific communities of the developing world together to enable and support effective adaptation decisions to reduce vulnerability to climate change. The project supports 19 pilot actions in 17 countries across Africa and Asia.

138. The **United Nations Educational, Scientific and Cultural Organization (UNESCO)**¹⁶⁰ is the United Nations specialized agency for education and lead agency for the United Nations Decade of Education for Sustainable Development (DESD) (2005–2014), which includes climate change as a thematic priority.¹⁶¹ As task manager for chapter 36 (Promoting education, public awareness and training) of Agenda 21,¹⁶² UNESCO promotes the integration of climate change into national curricula and lifelong learning programmes. To that end, UNESCO hopes to develop and disseminate teaching, training, learning and resource materials on climate issues. Teacher training activities are due to be adapted accordingly.

139. The DESD continues to focus on how to mobilize all strata of society and available expertise in both formal and non-formal education to further the principles, values and behaviour linked to sustainable development and to induce the necessary behavioural and attitudinal changes required to minimize negative climate impacts, including through education and awareness-raising for disaster prevention and mitigation, and climate change education. UNESCO is promoting a coordinated educational response by sister United Nations agencies to address climate change in the framework of the United Nations Inter-Agency Committee for the DESD. The joint development of an Environmental Education Resource Pack for Child Friendly Schools is under way. This resource pack seeks to provide a tool that will support countries in strengthening children's knowledge, skills, attitudes and ability to

¹⁵⁴ <<http://www.unwto.org/climate>>.

¹⁵⁵ <<http://www.climatesolutions.travel>>.

¹⁵⁶ <http://www.ccp-unitar.org/rubrique.php3?id_rubrique=1&lang=en>.

¹⁵⁷ <<http://www.c3d-unitar.org>>.

¹⁵⁸ <<http://www.napa-pana.org>>.

¹⁵⁹ <<http://www.acccaproject.org/accca>>.

¹⁶⁰ <<http://portal.unesco.org>>.

¹⁶¹ <http://portal.unesco.org/education/en/ev.php-URL_ID=27234&URL_DO=DO_TOPIC&URL_SECTION=201.html>.

¹⁶² <<http://www.un.org/esa/sustdev/documents/agenda21/english/agenda21chapter36.htm>>.

adapt to a changing physical environment, while providing a mechanism to promote and support the use of facilities-based environmental solutions.

140. The **United Nations University (UNU)**,¹⁶³ with its headquarters in Tokyo, Japan, and a worldwide network of 13 research and training centres and programmes, covers a wide range of topics that are directly related to climate change impacts and adaptation, including sustainability, disaster risk reduction, economic development, water resources management, food security, and health and human security. The UNU headquarters has launched a regional training programme on catastrophic flood risk assessment for Asia-Pacific countries. Based on detailed pilot studies, a set of tools has been developed and a training programme has been established to enhance and share knowledge among universities and responsible agencies in Asia-Pacific countries to use advanced numerical models for rainfall downscaling, inundation modelling and risk assessment for worst-case major urban flooding scenarios. The programme is designed to provide training for five countries per year. The Global Environment Information Centre,¹⁶⁴ a joint initiative between UNU and the Japanese Ministry of the Environment, focuses on community-based climate change adaptation.

141. The **UNU Institute for Environment and Human Security (UNU-EHS)**¹⁶⁵ aims for academic excellence in the principal priorities of its programme: the broad interdisciplinary field of 'risk and vulnerability', including vulnerability assessment, resilience analysis, risk management and adaptation strategies within linked human-environment systems. This is also reflected in the projects of UNU-EHS. The Munich Climate Insurance Initiative has now opened an office at UNU-EHS in Bonn, Germany, to amplify its work related to two strategic areas: (1) climate adaptation (the study of how insurance-related mechanisms can facilitate adaptation to adverse climate risks); (2) equity and climate risk transfer (the study how of insurance-related mechanisms can reduce the impacts of climate change on developing countries), and the search for policy directions to transfer risk away from the most adversely affected regions. The Global Risk project,¹⁶⁶ in collaboration with the Japanese Ministry of the Environment, focuses on community-based climate change adaptation. UNU-EHS hosted the International Conference on Environment, Forced Migration and Social Vulnerability from 9–11 October 2008, in order to focus on the linkages between environmental change, migration and factors of social vulnerability.¹⁶⁷

142. In collaboration with FAO, the UNU Maastricht Economic and Social Research and Training Centre on Innovation and Technology is implementing the LINK (Learning Innovation, Knowledge) initiative, a specialist network of regional innovation policy studies hubs in East and West Africa, South Asia and Central America.

III. Streamlining and scaling up financial and technological support

143. There is an urgent need for more streamlined, innovative and transparent access to resources to enable adaptation, including funding and technology transfer. Current funding is small compared with the magnitude of the needs identified. Parties have expressed the need for funding that is appropriate, sufficient and predictable. Developing country Parties are experiencing difficulties in accessing the multiplicity of funding sources owing to the fragmentation of available funding both within and outside the UNFCCC process and the conditions imposed for accessing them.

¹⁶³ <<http://www.unu.edu>>.

¹⁶⁴ <<http://geic.hq.unu.edu/index.cfm>>.

¹⁶⁵ <<http://www.ehs.unu.edu>>.

¹⁶⁶ <<http://geic.hq.unu.edu/ENV/project1.cfm?type=1&ID=318>>.

¹⁶⁷ <<http://www.efmsv2008.org>>.

144. Under the Convention, funding for adaptation is provided through the financial mechanism of the Convention, currently operated by the GEF and the Adaptation Fund Board.¹⁶⁸ Insurance and innovative risk-sharing mechanisms have been identified as important components of action on adaptation.

145. In 2007 the secretariat launched a project to review and analyse investment and financial flows relevant to the development of an effective and appropriate international response to climate change, with particular focus on the needs of developing countries, including their medium-to long-term requirements for investment and finance.¹⁶⁹ As mandated by the AWG-LCA at its second session,¹⁷⁰ the secretariat is currently preparing an update of the technical paper on investment and financial flows to address climate change, taking into account paragraph 1 of the Bali Action Plan.

146. Technological resources are also an important requirement and needs-based regional technology transfer is vital to help developing countries adapt to climate change. Within the UNFCCC process, Parties have taken decisions to promote the development and transfer of technologies. Two important aspects of the work on technology transfer are the technology information clearing house (TT:CLEAR) and the expert group on technology transfer (EGTT).

A. Support available under the Convention

147. The **Global Environment Facility (GEF)**¹⁷¹ is an operating entity of the financial mechanism of the UNFCCC and is subject to review every four years. The financial mechanism is accountable to the COP, which decides on its policies, programme priorities and eligibility criteria related to the UNFCCC. The GEF Project Database¹⁷² provides a full list of projects funded by the GEF, including those on adaptation.

148. Three avenues for funding were established under the GEF: the SPA under the GEF Trust Fund, the LDCF and the SCCF. The LDCF and SCCF are independent funds with their own governing body and operational guidelines outside the GEF Trust Fund. One of the main tenets of these funds is that they fund the additional costs of adaptation for development activities. The term 'additional costs' refers to the costs superimposed on vulnerable countries to meet their immediate adaptation needs, as opposed to the term 'incremental costs', which is paid by the GEF in projects that generate global benefits.

149. The SPA supports pilot and demonstration projects in the field of adaptation. It supports projects that provide real benefits and may be integrated into national policies and sustainable development planning. An initial allocation of USD 50 million was set aside and, as at October 2008, these resources had been committed.¹⁷³ There are 22 projects in total and all are at an early stage of implementation.

150. The SCCF, operated by the GEF, finances activities, programmes and measures relating to climate change that are complementary to those funded by the resources allocated to the GEF climate change focal area and those funded by bilateral and multilateral funding, including in the area of adaptation. As at October 2008, 13 contributing participants (Canada, Denmark, Finland, Germany, Ireland, Italy, Netherlands, Norway, Portugal, Spain, Sweden, Switzerland and the United Kingdom of Great Britain and Northern Ireland) had pledged contributions to the SCCF. The total amount pledged to

¹⁶⁸ The Adaptation Fund is currently being operationalized, and the AFB is its operating entity.

¹⁶⁹ <<http://unfccc.int/4053.php>>, <http://unfccc.int/files/cooperation_and_support/financial_mechanism/financial_mechanism_gef/application/pdf/dialogue_working_paper_8.pdf>.

¹⁷⁰ FCCC/AWGLCA/2008/8.

¹⁷¹ <<http://www.gefweb.org/interior.aspx?id=264>>.

¹⁷² <<http://www.gefonline.org/home.cfm>>.

¹⁷³ Report on the completion of the Strategic Priority on Adaptation <[http://www.gefweb.org/uploadedFiles/Documents/Council_Documents__\(PDF_DOC\)/GEF_C34/C.34.8%20Report%20on%20the%20Completion%20of%20the%20SPA.pdf](http://www.gefweb.org/uploadedFiles/Documents/Council_Documents__(PDF_DOC)/GEF_C34/C.34.8%20Report%20on%20the%20Completion%20of%20the%20SPA.pdf)>.

date is the equivalent of USD 91 million. There are 15 approved SCCF Adaptation Programme projects totaling USD 67.5 million and 14 projects in the pipeline that are expected to request approximately USD 46 million.¹⁷⁴

151. The LDCF, operated by the GEF, is designed to support projects addressing the urgent and immediate adaptation needs of the LDCs as identified by their NAPAs. The LDCF contributes to the enhancement of adaptive capacity to address the adverse effects of climate change, including, as appropriate, in the context of national strategies for sustainable development. As at October 2008, 19 contributing participants (Australia, Austria, Canada, Denmark, Finland, France, Germany, Ireland, Italy, Japan, Luxembourg, Netherlands, New Zealand, Norway, Portugal, Spain, Sweden, Switzerland and United Kingdom) had pledged contributions to the LDCF of the equivalent of USD 172.8 million. As at October 2008, USD 9.4 million had been allocated to the preparation of NAPAs and USD 77 million was committed to approved and forthcoming NAPA implementation projects. Twenty-four countries have officially submitted their NAPA implementation projects to the GEF through the Project Identification Form for NAPA implementation under the LDCF and 19 projects have been approved in the following countries: Bangladesh, Benin, Bhutan, Burkina Faso, Cambodia, Cape Verde, Democratic Republic of the Congo, Djibouti, Eritrea, Gambia, Haiti, Malawi, Mauritania, Niger, Samoa, Sierra Leone, Sudan, Tuvalu and Zambia.

152. The **Adaptation Fund**¹⁷⁵ was established to finance concrete adaptation projects and programmes in developing countries that are Parties to the Kyoto Protocol. The Adaptation Fund is to be financed with a share of proceeds from clean development mechanism (CDM) project activities and funds from other sources. The share of proceeds amounts to 2 per cent of certified emission reductions issued for a CDM project activity. By its decision 1/CMP.3, the Conference of the Parties serving as the meeting of the Parties to the Kyoto Protocol decided that the operating entity of the Adaptation Fund shall be the Adaptation Fund Board, and invited the GEF to provide secretariat services to the Board and the World Bank to serve as the trustee of the Adaptation Fund, both on an interim basis. These interim institutional arrangements will be reviewed after three years. The Adaptation Fund Board is composed of 16 members and 16 alternates and its meetings takes place at least twice a year.

153. At COP 7 in 2001, by decision 4/CP.7, paragraph 1, Parties reached agreement on the implementation of a technology transfer framework: the framework for meaningful and effective actions to enhance the implementation of Article 4, paragraph 5, of the Convention.¹⁷⁶ The EGTT was established with the aim of enhancing the implementation of this framework and to advance technology transfer activities under the Convention. The EGTT have produced a range of targeted and instructive products that Parties can use as they formulate their specific climate change adaptation technology strategies. The secretariat hosts TT:CLEAR, which is an online clearing house that is intended to improve the flow of, access to and quality of information relating to the development and transfer of environmentally sound technologies under Article 4, paragraph 5, of the Convention, and to contribute to more efficient use of available resources by achieving synergy with other ongoing efforts.

B. Support available within the United Nations system

154. With a presence on the ground in more than 160 countries and a United Nations coordinating mandate, **UNDP** assists developing countries to leverage financing to meet national development objectives using national budgets, the United Nations system, overseas development assistance, private

¹⁷⁴ Progress report on the Least Developed Countries Fund (LDCF) and the Special Climate Change Fund (SCCF) <http://www.gefweb.org/uploadedFiles/Documents/LDCFSCCF_Council_Documents/LDCFSCCF5_November_2008/LDCF.SCCF.5.Inf.3%20Progress%20Report.pdf>.

¹⁷⁵ <http://unfccc.int/cooperation_and_support/financial_mechanism/items/3659.php>.

¹⁷⁶ <<http://unfccc.int/ttclear/jsp/Framework.jsp>>.

sector investments, the GEF and other innovative sources. UNDP seeks to help countries mobilize additional sources of funding for implementing adaptation responses.

155. UNDP aims to deliver adaptation solutions through its practice areas of poverty reduction, democratic governance, crisis prevention and recovery, and environment and energy. UNDP provides support to countries identified as ‘climate hot spots’ where both vulnerability and climate hazards are high, such as in LDCs and SIDS. This is carried out through cross-sectoral programmatic approaches, moving beyond isolated adaptation initiatives or projects, which it is hoped will also help mainstream adaptation into development processes. UNDP is partnering with specialized agencies to support policy changes, capacity-building, and climate risk reduction practices that aim to attain the MDGs in the face of climate change. The UNDP-GEF Community-Based Adaptation project pilots the community component of the GEF Strategic Priority on Adaptation, building the resilience of communities and the ecosystems upon which they rely in confronting climate change impacts.¹⁷⁷

156. UNEP supports a range of projects on adaptation. This includes funding work on Forging African Strategies on Climate Change,¹⁷⁸ and Regional Planning for Adaptation to Climate Change in the Caribbean.¹⁷⁹ The UNEP Bali Strategic Plan for Technology Support and Capacity-building,¹⁸⁰ approved in 2005, constitutes an intergovernmentally agreed approach to strengthen technology support and capacity-building in developing countries, as well as countries with economies in transition.

157. The UNEP Division of Global Environment Facility Coordination provides the secretariat services to the Scientific and Technical Advisory Panel of the GEF and supports the development and implementation of GEF-funded projects. As a GEF implementing agency, UNEP works with governments, NGOs, universities and research institutes to develop their project ideas and oversee the implementation of the work, providing managerial, administrative and technical support. UNEP is supporting the implementation of more than 500 projects in 152 countries. Capacity-building is an important component of almost all UNEP GEF projects. To this end, UNEP supports the implementation of national enabling activities, which strengthen the capacity of countries to meet their obligations under the global environmental conventions.

158. IFAD, as a GEF executing agency, helps countries access funding opportunities within the GEF adaptation programme. Under the IFAD/GEF-4 engagement strategy, the GEF and IFAD are addressing the intertwined issues of poverty alleviation, sustainable land management and climate change. In partnership with the GEF, IFAD is currently working to support NAPA implementation in countries, such as Sierra Leone, which have identified agriculture as a priority sector for intervention. In addition, IFAD is developing a Livestock Sector Adaptation Project in Mongolia to be financed through the SCCF, which aims to increase the resilience of the Mongolian livestock system to changing climatic conditions by strengthening natural resource management, climate-proofing the water supply, and building the capacity of herders’ groups to address climate change.

159. IFAD’s grants represent another important tool to support climate change adaptation related work. In partnership, in particular with the CGIAR family, IFAD supports the generation and transfer of environmentally friendly agricultural technologies that address climate change adaptation at the community level by developing mechanisms that better link institutions with farmer communities. A small grant to the Solomon Island Development Trust, funded by IFAD’s Indigenous Peoples

¹⁷⁷ <http://www.undp-adaptation.org/projects/websites/index.php?option=com_content&task=view&id=203>.

¹⁷⁸ <<http://www.unep.org/Documents/Multilingual/Default.asp?DocumentID=538&ArticleID=5831&l=en>>.

¹⁷⁹ <<http://www.unep.org/DEC/OnLineManual/Compliance/InternationalCooperation/RegionalActionPlans/Resource/tabid/711/Default.aspx>>.

¹⁸⁰ <<http://www.unep.org/dec/onlinemanual/Compliance/NationalImplementation/CapacityBuilding/Resource/tabid/679/Default.aspx>>.

Assistance Facility, aims to involve the Babanakira and Kolina indigenous groups in enhancing their traditional coping strategies and merging these with modern scientific and technical knowledge so as to build their ability to cope with natural disasters.

160. IFAD also mobilized additional resources for climate change adaptation through a proposal, currently under preparation, entitled “Support to Rural Poor to address Climate Change in Africa” to be funded by the Agencia Española de Cooperación Internacional para el Desarrollo (Spanish Cooperation Agency).

161. Through the **Innovation Mainstreaming Initiative (IMI)**,¹⁸¹ aimed to enhance IFAD’s capacity to promote innovations that have a positive impact on rural poverty, IFAD has co-funded adaptation-related activities such as an index-based insurance pilot project in China as well as internal capacity-building initiatives on climate change issues, with particular emphasis on adaptation.

162. Projects of the **FAO** field programme have two main funding sources: (1) the Technical Cooperation Programme drawn from the core budget of the Organization (also known as the Regular Programme, which is funded by contributions from FAO Member Nations), and (2) extrabudgetary resources mainly received from bilateral multilateral donors (e.g. the European Union, UNDP, Swedish International Development Cooperation Agency). FAO has about 2,050 field projects in operation (including 650 TeleFood projects) with a total value of USD 768 million.

163. FAO is collaborating with other United Nations system organizations in projects, covering 16 countries (including Afghanistan, Bosnia and Herzegovina, Brazil, China, Colombia, Ecuador, Egypt, Ethiopia, Guatemala, Jordan, Mozambique and Turkey) under the thematic window Environment and Climate Change of the UNDP–Spain MDG Achievement Fund. These projects address the acceleration of MDG achievement with a particular focus on adaptation to climate change and risk management of possible impacts of climate change.

164. FAO, in collaboration with the UNFCCC secretariat, UNICEF, CBD, United Nations Programme on Youth and other agencies, is developing a number of activities and initiatives to raise awareness and promote engagement of children and young people in climate change issues and debates.¹⁸²

165. The important financial resources available to **WFP** (some USD 2.7 billion per year in the past three years) combined with its extensive office network, offers a dependable platform for tackling the consequences and prevention of climate change in the most remote and impoverished areas of the world. In 2007 alone, WFP devoted USD 280 million to implement community-based activities that help reduce social and environmental vulnerabilities of food insecure households and communities to climate change. In Ethiopia an insurance pilot project protects farmers against the impacts of severe drought. The project developed a comprehensive drought-risk financing scheme for the 5–8 million Ethiopians subject to transitory food insecurity with the World Bank and the Department for International Development (DFID) of the United Kingdom.

166. The **UN DESA Financing for Development Office**¹⁸³ seeks to provide effective secretariat support for sustained follow-up within the United Nations system to the agreements and commitments reached at the International Conference on Financing for Development, as contained in the Monterrey Consensus. It also seeks to provide financing for development-related aspects of the outcomes of major United Nations conferences and summits in the economic and social fields, including adaptation, as well as the MDGs.

¹⁸¹ Financed by the Department for International Development (DFID) of the United Kingdom.

¹⁸² <<http://www.fao.org/climatechange/51175/en>>.

¹⁸³ <<http://www.un.org/esa/ffd>>.

167. A UNEP and UNDP initiative, funded by the Ministry of Foreign Affairs of Denmark, the three-year USD 3 million Climate Change and Development–Adapting by Reducing Vulnerability programme for sub-Saharan Africa provides demand-driven financial and technical support to countries in sub-Saharan Africa to remove barriers for the integration of climate change issues into development planning and decision-making frameworks.

C. Support available under special agencies and related organizations

168. The **Asian Development Bank (ADB)**¹⁸⁴ is helping economies in the region enhance their resilience to climate change by assisting governments to: (1) incorporate vulnerability risks into national development strategies and actions; (2) increase climate resilience of vulnerable sectors such as water and agriculture; (3) climate-proof investment projects; and (4) address social dimensions of adaptation, and, in particular, poverty alleviation. The ADB can access both internal and external grant financing for member countries to undertake these activities, including financing the incremental costs of climate-proofing investment projects.

169. The **African Development Bank (AfDB)**¹⁸⁵ started a climate adaptation and climate risk programme in 2006 with interventions at policy, capacity and project levels. They are designing climate-risk and adaptation interventions, funding and co-funding adaptation projects and conducting in-house training and awareness-raising. Work on adaptation includes climate-proofing bank operations and targeted assistance to support African countries to improve their resilience to current climate variability and future climate change impacts. Example projects include joint coordination (with AUC, ECA and GCOS) of the Clim-Dev project and Climate Adaptation for Rural Livelihoods and Agriculture in Malawi.

170. The **European Bank for Reconstruction and Development (EBRD)**¹⁸⁶ has had an environmental mandate since its inception and promotes environmentally sound and sustainable development in all its activities. It uses the tools of investment to help build market economies and democracies in countries from Central Europe to Central Asia. The EBRD's Environmental and Social Policy 2008 states that the EBRD seeks to support climate change mitigation and adaptation, in particular by investing in energy efficiency and renewable energy projects and by supporting best practices in climate change adaptation.

171. The **Inter-American Development Bank (IDB)**¹⁸⁷ provides financing, leverage, policy advice, research, and technical assistance to carry out development projects in 26 countries of the Latin America and the Caribbean region. For example, it has established a new multi-donor trust fund to finance technical assistance and grant investments for disaster prevention and risk management in its borrowing countries in Latin America and the Caribbean.

172. The **United Nations Industrial Development Organization (UNIDO)**¹⁸⁸ mobilizes knowledge, skills, information and technology to promote productive employment, a competitive economy and a sound environment. It enhances cooperation at global, regional, national and sectoral levels. An example project on adaptation by UNIDO is the joint programme on environment mainstreaming and adaptation to climate change in Mozambique. At the Delhi Sustainable Development Summit 2008, the representative of UNIDO emphasized that water, energy and resource efficiency would hold the key to the successful adaptation of industry to climate change.

¹⁸⁴ <<http://www.adb.org/Environment/default.asp>>.

¹⁸⁵ <<http://www.afdb.org>>.

¹⁸⁶ <<http://www.ebrd.com>>. See also information on application of funds at:

<<http://www.ebrd.com/apply/index.htm>>.

¹⁸⁷ <<http://www.iadb.org>>.

¹⁸⁸ <<http://www.unido.org>>.

173. The **World Bank Group** has recently created new resources for funding adaptation in the context of the Climate Investment Funds (CIF).¹⁸⁹ A total of USD 6.141 billion has been pledged for the CIF. The funds will be disbursed as grants, highly concessional loans and/or risk mitigation instruments and will be administered through the multilateral development banks, ADB, AfDB, EBRD and IDB, and the World Bank Group. Approval of funding for initial projects or programmes is expected before the end of 2008.

174. Two trust funds are being created under the CIF. The Clean Technology Fund seeks to invest in projects and programmes in developing countries that contribute to the demonstration, deployment and transfer of low-carbon technologies. The projects or programmes must have a significant potential for long-term greenhouse gas reductions. The second fund, the Strategic Climate Fund, is intended to be broader and more flexible in scope. It will serve as an overarching fund for various programmes to test innovative approaches to climate change. The first programme under this fund is a pilot project aimed at increasing climate resilience in developing countries. A Forest Investment Programme and a Scaling-Up Renewable Energy Programme are expected to be created in the near future. All funds and programmes under the CIF have a sunset clause in order not to prejudice UNFCCC deliberations regarding the future of the climate change regime.

175. In collaboration with the multilateral development banks, the GEF and other partners, the World Bank Group is piloting several innovative mechanisms with the intention of providing practical lessons and capacity-building on successful support and leverage of climate investment. Recent examples and future directions include initiatives to raise funds on capital markets, that still meet the needs of private investors for socially responsible investment and efforts to customize new insurance and reinsurance products for catastrophic and climate-related risks in order to expand the reach of these products.

176. The World Bank implements a number of projects. The World Bank database gives details of all of its lending projects including those on adaptation.¹⁹⁰ The Environment Department at the World Bank¹⁹¹ coordinates efforts on adaptation to climate change across the World Bank, and is also involved in the following:

- (a) A climate change portal that provides quick and readily accessible climate and climate-related data to development practitioners. It also includes a mapping visualization tool (webGIS) that displays key climate variables;
- (b) A screening tool called ADAPT (Assessment & Design for Adaptation to Climate Change: A Prototype Tool). This computer-based tool identifies, at the planning and design stage, potential climate risk posed to development projects. At present, it screens agriculture and natural resource management (NRM) sectors in South Asia and sub-Saharan Africa, but is being extended to include coastal infrastructure and rural transport, as well as other regions;
- (c) A series of guidance booklets on Mainstreaming Climate Risk Management and Adaptation to Climate Change in Development Projects. These notes have a special focus on agricultural, NRM and rural development projects;
- (d) An in-depth study on adaptation to climate change in agriculture and related natural resources. This report focuses on lessons learned and good implementation practices;

¹⁸⁹ <<http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/ENVIRONMENT/EXTCC/0,,contentMDK:21713769~menuPK:4860081~pagePK:210058~piPK:210062~theSitePK:407864,00.html>>.

¹⁹⁰ <<http://web.worldbank.org/WBSITE/EXTERNAL/PROJECTS/0,,menuPK:51563~pagePK:95873~piPK:95910~theSitePK:40941,00.html>>.

¹⁹¹ <<http://www.worldbank.org/environment>>.

- (e) The Economics of Adaptation to Climate Change, a series of seven country case studies (Bangladesh, Bolivia, Ethiopia, Ghana, Mozambique, Viet Nam and one SIDS yet to be selected) to help developing countries that are particularly vulnerable to climate change assess the risks posed by climate change, design better strategies to adapt and understand the cost involved. Each country prioritizes the main areas to consider in the context of likely vulnerability to climate change (e.g. glacial melt, sea level rise, monsoon flood).

177. There has been some increased commitment of international financing institutions on disaster risk reduction, including the launch of the **Global Facility for Disaster Reduction and Recovery (GFDRR)**¹⁹² by the World Bank in 2006 to address the needs of vulnerable countries and provide coherent approaches to risk reduction and recovery at global and regional level by using the ISDR system. The GFDRR aims to mainstream disaster reduction and climate change adaptation into country development strategies (such as poverty reduction strategies, country assistance strategies, United Nations Development Assistance Frameworks and NAPAs) to reduce vulnerabilities to natural hazards.

178. The **United Nations Environment Programme Finance Initiative (UNEP FI)**¹⁹³ is a global partnership between UNEP and the financial sector. Over 160 institutions, including banks, insurers and fund managers, work with UNEP to understand the impacts of environmental and social considerations on financial performance. UNEP FI works collaboratively to find innovative approaches to issues on finance and sustainability. Current projects by its Insurance Working Group include: Principles for Sustainable Insurance Publication on Sustainability and The Insurance Industry Study on Microinsurance, and Natural Catastrophe Pools and Alternative Risk Transfer Products.

IV. Enhancing knowledge sharing

179. The effectiveness for planning and implementing adaptation is enhanced, when based on sound impact and vulnerability assessments, by enabling environments to share scientific and technological information, adaptation-relevant knowledge and best practices, including leveraging existing resources and expertise and engaging all stakeholders in the adaptation effort.

180. The Nairobi work programme is assisting countries to improve their understanding and assessment of the impacts of climate change and to make informed decisions on practical adaptation actions and measures (see box 5).

181. Much of the work of the United Nations discussed in the previous sections, particularly in the section on adaptation planning and implementation, involves knowledge sharing. This section provides information on the work by the United Nations System on enhancing knowledge sharing in addition to that already discussed in this note.

¹⁹² <<http://gfdr.org>>.

¹⁹³ <http://www.unepfi.org/work_streams/insurance/index.html>.

Box 5. The Nairobi work programme on impacts, vulnerabilities and adaptation to climate change

In 2003, following consideration of the Third Assessment Report of the IPCC and the acknowledgement that adaptation is a necessity for all countries, Parties requested the Subsidiary Body for Scientific and Technological Advice (SBSTA) to initiate work on the scientific, technical and socio-economic aspects of adaptation to climate change (decision 10/CP.9, para. 1). In 2004, at the tenth session of the Conference of the Parties (COP) in Buenos Aires, Argentina, Parties decided to elaborate a five-year programme of work under the SBSTA (decision 1/CP.10, para. 23). After additional deliberations at COP 11 in Montreal, Canada, Parties adopted the five-year programme of work of the SBSTA on impacts, vulnerability and adaptation to climate change (decision 2/CP.11, para. 1). Activities for the first phase of the programme of work (up to June 2008) were finalized at COP 12, in 2006, in Nairobi, Kenya, where the programme was also renamed the Nairobi work programme on impacts, vulnerabilities and adaptation to climate change, its current title. The twenty-eighth session of the SBSTA, held in June 2008, marked the completion of the first phase of the Nairobi work programme and the commencement of the second phase with agreement on a clear set of activities up to the end of the programme in December 2010.^a

To date, action across the nine work areas of the Nairobi work programme has been stimulated at all levels, including through submissions from Parties and organizations, synthesis reports, web-based information such as the adaptation practices interface,^b workshops and expert meetings.

The Nairobi work programme has become a global framework on adaptation involving Parties and over 100 intergovernmental and non-governmental organizations, the private sector and other adaptation stakeholders. This includes the 22 organizations that have provided the 63 action pledges to carry out activities in support of adaptation.^c These organizations have publicly committed to the Nairobi work programme and have committed to sharing results, experiences and knowledge resulting from the implementation of pledged activities at subsequent SBSTA sessions.

The secretariat has developed Calls for Action, following guidance from the Chair of the SBSTA. The Calls for Action aim to facilitate the implementation of recommendations, by Parties and other stakeholders, resulting from the Nairobi work programme workshops and expert meetings.^d

During the second phase of the programme, a greater emphasis is on the further engagement of organizations, particularly those that focus on community, national and regional actions and on education, training and awareness-raising. The implementation of the mandated activities of the second phase could extend the scope of the programme to a wider audience, including a range of stakeholders at national and community levels.

^a FCCC/SBSTA/2008/6, annex II.

^b <<http://unfccc.int/4555.php>>.

^c <<http://unfccc.int/3996.php>>.

^d <<http://unfccc.int/4430.php>>.

A. Relevant work undertaken by individual entities in the United Nations system

182. The **United Nations Educational, Scientific and Cultural Programme (UNESCO)**¹⁹⁴ works to create the conditions for dialogue among civilizations, cultures and peoples, based upon respect for commonly shared values, through its regional offices (Africa, Arab States, Asia and the Pacific, Europe and North America and Latin America and the Caribbean), 27 cluster offices (covering 143 member States) and 21 national offices (including the E-9 countries (nine highly-populated countries) and countries in post-conflict situations or in transition).

¹⁹⁴ <<http://ioc3.unesco.org/unesco-climate/index.php>>.

183. UNESCO's (Draft) Strategy for Action on Climate Change¹⁹⁵ consists of an integrated multidisciplinary programme capable of offering member States capacity-building and technical advice to design and implement evidence-based policies and projects at the local, national, regional and global levels, drawing on two principal pillars: (a) the sound and unbiased generation and use of data, information and research concerning climate change (the knowledge base); and (b) the application of educational tools, specific sectoral measures and public awareness activities. This strategy aims to assist member States to: build and maintain a requisite knowledge base; adapt to the impacts of climate change; and strengthen sustainable development. Africa and gender equality are the two overarching UNESCO priorities for the Medium Term Strategy 2008–2013, reflecting the recommendations of the 2005 World Summit Outcome document.¹⁹⁶

184. UNESCO is closely involved in activities to improve understanding of the capacity and mechanisms for ecological and social systems to adjust to changes in climate, and to take advantage of opportunities or cope with the consequences through an integrated approach that examines the range of environmental, economic, informational, social, attitudinal and behavioural conditions that determine vulnerability and adaptive capacity.¹⁹⁷ UNESCO works through the World Climate Research Programme,¹⁹⁸ the Drylands and Desertification Programme,¹⁹⁹ the Global Coral Reef Monitoring Network,²⁰⁰ GOOS²⁰¹ and the IHP.²⁰²

185. Disaster preparedness and mitigation²⁰³ is among the programme objectives for UNESCO's (Draft) Strategy for Action on Climate Change, which identifies a vital role for UNESCO in constructing a global culture of disaster risk reduction. The organization is closely involved in the conceptual shift in thinking away from post-disaster reaction to pre-disaster action. Through its broad mandate and expertise, UNESCO is helping countries build their capacity to cope with disasters; it provides a forum for governments to work together and it provides scientific and practical advice in disaster reduction.

186. The Climate Change Knowledge²⁰⁴ (CliCK) Partnership was conceived as a follow-up to the UNESCO side event "Articulating science and education to face the challenge of global climate change: a UNESCO dialogue" at COP 13. The CliCK Partnership provides a platform for the exchange of ideas, information and innovative experiences for educational institutions, scientific and research organizations, policy and decision makers and civil society involved with climate change activities, covering different disciplines capable of mobilizing resources and scientific results. These resources and results are shared through a pluralistic international approach with a focus on the sub-region. Ongoing activities include: Technology-Mediated Open and Distance Education and Learning (Tech-MODE) programme on global issues of climate change; Global Climate Change Collaborative focused on the Sunderbans Biosphere Reserve and World Heritage site; Climate Change and Youth, in Delhi, India; collaborating with the Society for Environment Education and Development in organizing the Stockholm Junior Water Prize in

¹⁹⁵ <http://ioc3.unesco.org/unesco-climate/task_force/UNESCO%20draft%20climate%20change%20strategy%20final%20121107.pdf>.

¹⁹⁶ <<http://daccessdds.un.org/doc/UNDOC/GEN/N05/487/60/PDF/N0548760.pdf?OpenElement>>.

¹⁹⁷ <http://portal.unesco.org/science/en/ev.php-URL_ID=6246&URL_DO=DO_TOPIC&URL_SECTION=201.html>.

¹⁹⁸ <<http://wcrp.wmo.int/wcrp-index.html>>.

¹⁹⁹ <<http://www.unesco.org/mab/ecosyst/drylands.shtml>>.

²⁰⁰ <<http://www.gcrmn.org/>>.

²⁰¹ <<http://www.ioc-goos.org/>>.

²⁰² <<http://typo38.unesco.org/index.php?id=240>>.

²⁰³ <http://www.unesco.org/science/disaster/index_disaster.shtml>.

²⁰⁴ <http://portal.unesco.org/science/en/ev.php-URL_ID=6644&URL_DO=DO_TOPIC&URL_SECTION=201.html>.

India involving young scientists; global change studies in the Nanda Devi Biosphere Reserve; and an environment education module on climate change.

187. **IFAD** hosts a web-based portal that offers climate change related information in the form of statistics, as well as statements, speeches, case study reports and publications.²⁰⁵ These state that learning processes should generate knowledge for rural development partners and also ensure that knowledge can and should be applied immediately and in practical ways. The topics covered in the Rural Poverty Knowledge base highlight how experiences can be transformed into systematic and operations-oriented learning exercises. The GECC Unit has started an internal capacity-building programme on climate change for its Programme Management Department through the CLIMTRAIN project. With a series of workshops to disseminate lessons learned, it is hoped that best practices and experiences will be widely available through various knowledge sharing platforms, including IFAD's regional networks at the country level.

188. **FAO** provides a number of knowledge sharing facilities. It hosts a web-based portal linking climate change related activities in its areas of work, including agriculture, biodiversity, climate risk management, forestry, fisheries, livestock, monitoring and assessment, the Nairobi work programme, soil and water, data and tools, projects and case studies.²⁰⁶

189. **FAO** also hosts a web-based portal on climate impact on agriculture (CLIMPAG) that contains methodologies, tools for a better understanding and analysis of the effect of the variability of weather and climate on agriculture as well as near real-time and historical climatic data and maps.²⁰⁷

190. **FAO** has developed, in collaboration with the Asian Disaster Preparedness Center and the Department of Physical Geography at the University of Freiburg, Germany, an interactive, web-based e-learning tool on climate and flood forecast applications in agriculture.²⁰⁸

191. **FAO** produces water and climate change maps that show the typology of climate change impacts and response options, including adaptation response, for agricultural water management in selected agricultural systems.²⁰⁹

192. The work of the **United Nations Commission on Sustainable Development** on climate change in the context of sustainable development includes a training course conducted in 2007 on Legal Strategies for Climate Change Adaptation by Vulnerable Communities²¹⁰ and a workshop held in 2007 on climate change and sustainable development with Adaptation to Climate Change in the Context of Sustainable Development as one of its two themes.

193. Through its research, publications and reports, the **United Nations Department of Economic and Social Affairs** seeks to serve all Member States as a global think-tank on economic and social affairs. The goal is to deepen understanding of sustainable development options that can be incorporated into the climate change discussion, becoming the analytical basis for agreement. Through technical assistance, it helps build national capacities so that countries can put in place mechanisms to develop their economies while adapting to climate change. It advises interested governments on the ways and means of translating policy frameworks developed in United Nations conferences and summits into sustainable development programmes at the national level. This includes adaptation-related work

²⁰⁵ <<http://www.ifad.org/rural/index.htm>>.

²⁰⁶ <<http://www.fao.org/climatechange/home/en>>.

²⁰⁷ <http://www.fao.org/nr/climpag/index_en.asp>.

²⁰⁸ <http://www.fao.org/nr/clim/abst/clim_071203_en.htm>.

²⁰⁹ <<http://www.fao.org/nr/water>>.

²¹⁰ <http://www.un.org/esa/sustdev/sdissues/climate_change/lc_courses.htm>.

through National Sustainable Development Strategies²¹¹ and Partnerships for Sustainable Development.²¹²

194. An important part of the **UNDP** adaptation effort is its work on knowledge exchange. This includes:

- (a) Awareness and capacity-building:
 - (i) Internal capacity is being developed as the starting point for supporting national adaptation and development activities. Adaptation training was delivered to more than 250 UNDP staff by October 2008. UNDP's active role is recognized in the stocktaking of the Organization for Economic Cooperation and Development on integrating adaptation into climate change and development cooperation;²¹³
 - (ii) Adaptation definitions²¹⁴ highlight commonly used terminology;
 - (iii) Adaptation Basics²¹⁵ provides an overview of the relationship between climate change impacts and development, including impacts by sector²¹⁶ (e.g. land degradation, health) as well as impacts affecting the achievement of the MDGs;²¹⁷
 - (iv) A three-hour web-based training module introduces UNDP staff to key concepts of climate change and highlights risks that climate change poses to human development and UNDP services. The module contains three lessons: the science of climate change, global responses to climate change and climate change and UNDP's development efforts.
- (b) Knowledge management:
 - (i) UNDP's Country Adaptation Profiles²¹⁸ hosted by the Adaptation Learning Mechanism provide information on climate change and national initiatives for over 140 developing countries. Users can also submit information to the database;²¹⁹
 - (ii) The Environment and Energy Network is a 1300-member list serve for global practitioners (either UNDP staff or external experts) to support each other's work through an exchange of resources, knowledge and experience on current environment and energy issues.

195. **UNEP**, in partnership with United Nations and other organizations, promotes the raising of awareness on climate change and adaptation to its impacts. UNEP are developing a Global Climate Change Adaptation Network that will provide a network of ground facilities, a network of regional centres and an international support group of technical institutions. The components of this network are to be interlinked through knowledge management systems facilitating the flow of data, information, knowledge and technology amongst the network components, supporting regional and global policy

²¹¹ <<http://www.un.org/esa/sustdev/natlinfo/nsds/nsds.htm>>.

²¹² <<http://www.un.org/esa/sustdev/partnerships/partnerships.htm>>.

²¹³ <<http://www.oecd.org/dataoecd/33/62/39216288.pdf>>. See page 18.

²¹⁴ <<http://www.undp.org/climatechange/adapt/definitions.html>>.

²¹⁵ <<http://www.undp.org/climatechange/adapt/basics1.html>>.

²¹⁶ <<http://www.undp.org/climatechange/adapt/basics2.html>>.

²¹⁷ <<http://www.undp.org/climatechange/adapt/basics3.html>>.

²¹⁸ <www.adaptationlearning.net>.

²¹⁹ <www.adaptationlearning.net/profiles>.

forums and delivering services to respective user groups through an interactive website. The aim of the Global Climate Change Adaptation Network is to enhance key adaptive capacity of developing countries through mobilizing the world's best knowledge and technologies to help build the climate resilience of vulnerable ecosystems and economies. It will have a strong focus on supporting the implementation of the Nairobi work programme through its contribution to local, national, regional and international climate change adaptation initiatives, which will also seek to respond to the other adaptation mandates under the UNFCCC process. UNEP has submitted the Global Climate Change Adaptation Network as an action pledge under the Nairobi work programme.²²⁰

196. UNEP national committees are channels for communication with the public in their country, but they are not official UNEP representatives. There are great variations in their core activities from one country to another. They are established to, among other things: increase public awareness and promote support for the mandate and functions of UNEP; increase public awareness of environmental problems and the steps necessary to deal with them; mobilize public support for the provision of adequate resources for the solution of environmental problems; and provide an additional forum for participating members to share information and experiences in the context of UNEP's programme and the work of the United Nations.

197. UNEP offices have become more visible through the use of Google Earth technology. Google Earth has been downloaded by over 120 million users around the world and provides a compelling platform for disseminating UNEP content related to reviewing the state of the environment and raising public awareness about environmental changes taking place around the world. The collaboration between UNEP and Google Earth provides a 'flying' experience around a virtual planet Earth, zooming in on environmental hotspots and comparing environmental conditions over time.

198. **WHO**²²¹ is directly building capacity to adapt to climate change. This includes workshops in the most vulnerable countries to raise awareness of the health implications of climate change and related weather patterns and to support intersectoral policies to reduce health vulnerability. Such activities aim at improving health conditions today, while simultaneously laying the ground for more adaptation measures to climate change in the future. The organization also has long-standing collaboration with health research organizations and with United Nations and other international and national agencies involved in adapting to climate change. WHO has published reports describing and evaluating the evidence for health risks from climate change and climate variability. WHO now increasingly focuses on making this information available to the most vulnerable countries, producing technical resources to carry out health vulnerability assessments and identifying and supporting public health protection within the national context.

199. By mandate of its Convention, one of the objectives of **WMO** is to encourage and support training of its members States to better fulfil their responsibilities for providing meteorological, hydrological and related products, information and services. To achieve this, WMO has established 30 regional training centres around the world providing technical training for the management and operation of NMHSs to enhance their abilities to provide better products and services, including services in support of disaster risk reduction operations and decision-making. These regional training centres offer opportunities for customized training in disaster risk reduction.

200. Through its DRR Programme,²²² WMO is developing a training strategy to provide joint training programmes at NMHSs and their partners in areas related to utilization of meteorological, hydrological

²²⁰ <http://unfccc.int/adaptation/sbsta_agenda_item_adaptation/items/4558.php>.

²²¹ <<http://www.who.int/globalchange/en>>.

²²² <<http://www.wmo.int/pages/prog/drr>>.

and climate information to support risk assessment, sectoral planning, early warning systems and financial risk transfer mechanisms.

201. The work of **UNWTO** on knowledge sharing on adaptation includes hosting the climate and tourism information exchange service.²²³

B. Relevant work undertaken through collaboration

202. The **UN Works for People and the Planet (UN Works)**²²⁴ is an innovative multimedia platform that puts a human face on the work of the United Nations by exploring global issues, including adapting to climate change. Partnerships with broadcast networks, celebrities, United Nations agencies, NGOs, educators, foundations and corporations explore the stories of people and their communities. UN Works provides online resources developed with Discovery, MTV and other networks to encourage people to share their stories, create their own content and initiate advocacy campaigns.

203. The **United Nations Communications Group (UNCG)**²²⁵ is the global communications platform of the United Nations system. It comprises the national information offices of the United Nations family of organizations, including the United Nations secretariat, specialized agencies, programmes and funds. With the growing emphasis on system-wide coherence and 'delivering as one' at the country level, the UNCG helps plan, coordinate and implement common public information and communications activities at the national level.

204. The **Capacity for Disaster Reduction Initiative (CADRI)**²²⁶ is a joint project between OCHA, UNDP and ISDR and relates to all five priorities of the HFA. It builds capacity to enhance national disaster management capacity in high-risk areas, for example through the compendium of capacity assessment tools and targeted training and assistance to governments.

205. The programme of work of the **United Nations Environment Management Group (EMG)**²²⁷ is developed consistent with the outcome of the major developments in international cooperation. In particular, the EMG works to advance the environment and human settlements objectives of the major world conferences on sustainable development. It is a grouping of all United Nations agencies and secretariats of multilateral environmental agreements as well as the Bretton Woods Institutions and the WTO working together to share information about their respective plans and activities in the fields of environment and human settlements. The EMG has identified the need for the development of a common approach across the United Nations to the implementation of the Nairobi work programme.²²⁸

206. The **World Bank Group** runs the Rural Institutions and Adaptation to Climate Change website.²²⁹ The objective of this website is to explore, discuss and pool information on how vulnerable populations cope with and adapt to climate change and the role of local institutions in enhancing their capacity to adapt. The website offers a discussion forum on the issues, a repository of knowledge and a platform for exchange of information on relevant events, studies, institutions and experience.

V. Summary

207. The Secretary-General of the United Nations, as chairperson of the CEB, has placed climate change at the top of the inter-agency agenda. In this context, the United Nations system has given

²²³ <<http://www.unwto.org/climate/index.php>>.

²²⁴ <<http://www.un.org/works/sub4.asp?lang=en&id=9>>.

²²⁵ <<http://unic.un.org/aroundworld/unics/en/partnerships/communicationGroup/index.asp>>.

²²⁶ <<http://www.unisdr.org/cadri>>.

²²⁷ <<http://www.unemg.org/index.php>>.

²²⁸ EMG/AM.07/11.

²²⁹ <<http://www-esd.worldbank.org/ricc>>.

priority to adaptation and has embarked on an ambitious effort to develop and present a coordinated contribution to adaptation to climate change. An intensive process of discussion by the CEB has led to the structuring of an implementation process that addresses adaptation in order to support the UNFCCC process and as part of the One United Nations strategy.

208. The initial focus of the United Nations system is providing support to Member States by implementing mandates already agreed by the respective governing bodies and international agreements and by responding to requirements under the UNFCCC process, including NAPAs, the Nairobi work programme and work mandated under the Subsidiary Body for Implementation. Activities within the United Nations system also address some elements of paragraph 1 (b) of the Bali Action Plan. United Nations organizations continue to provide support to Member States in sectors related to adaptation to climate change. These sectors include: agriculture and fisheries, disaster risk reduction, education, energy, forestry, health, oceans and coastal zones, population and human settlements, transport, and water.

209. The United Nations system aims, through its coordinated efforts and based on best practices and lessons learned by implementing current mandates, to be better able to support the implementation of adaptation initiatives in the future and to provide input to ongoing negotiations on climate change action for the future.

Annex**United Nations system entities referred to in this information note**

Abbreviation	Name	Weblink
ADB	Asian Development Bank	http://www.adb.org
AF	Adaptation Fund	http://unfccc.int/3659.php
AfDB	African Development Bank	http://www.afdb.org
CADRI	Capacity for Disaster Reduction Initiative	http://www.unisdr.org/cadri
CBD	Convention on Biological Diversity	http://www.cbd.int
CEB	Chief Executives Board for Coordination	http://www.unsystemceb.org
CGIAR	Consultative Group on International Agricultural Research	http://www.cgiar.org/impact/global/climate.html
CPF	Collaborative Partnership on Forests	http://www.fao.org/forestry/cpf/en
CSW	Commission on the Status of Women	http://www.un.org/womenwatch/daw/csw
CSD	United Nations Commission on Sustainable Development	http://www.un.org/esa/sustdev/sdissues/climate_change/climate_change.htm
DEWA	UNEP Division of Early Warning Assessment	http://www.unep.org/dewa/index.asp
EBRD	European Bank for Reconstruction and Development	http://www.ebrd.com
ECA	Economic Commission for Africa	http://www.uneca.org
ECE	Economic Commission for Europe	http://www.unece.org
ECLAC	Economic Commission for Latin America and the Caribbean	http://www.eclac.org
ECOSOC	United Nations Economic and Social Council	http://www.un.org/ecosoc
EMG	United Nations Environment Management Group	http://www.unemg.org
ESCAP	Economic and Social Commission for Asia and the Pacific	http://www.unescap.org
ESCWA	Economic and Social Commission for Western Asia	http://www.escwa.un.org/index.asp
ESSP	Earth System Science Partnership	http://www.essp.org
FAO	Food and Agriculture Organization of the United Nations	http://www.fao.org/climatechange/home/en
GA	General Assembly	http://www.un.org/ga
GCOS	Global Climate Observing System	http://www.wmo.int/pages/prog/gcos/
GEF	Global Environment Facility	http://www.thegef.org http://www.gefonline.org
GFDRR	Global Facility for Disaster Reduction and Recovery	http://gfdr.org
GOOS	Global Ocean Observing System	http://www.ioc-goos.org
GRID-Arendal	GRID Arendal	http://www.grida.no
GTOS	Global Terrestrial Observing System	http://www.fao.org/gtos
HELI	Health and Environment Linkages Initiative	http://www.who.int/heli/en
HLCP	High-level Committee on Programmes	http://hlcp.unsystemceb.org

Abbreviation	Name	Weblink
IASC	Inter-Agency Standing Committee	http://www.humanitarianinfo.org/iasc
IDB	Inter-American Development Bank	http://www.iadb.org
IFAD	International Fund for Agricultural Development	http://www.ifad.org/climate
IHDP	International Human Dimensions Programme on Global Environmental Change	http://www.ihdp.unu.edu
IHP	UNESCO International Hydrological Programme	http://typo38.unesco.org/index.php?id=240
IOC	UNESCO Intergovernmental Oceanographic Commission	http://ioc-unesco.org
IPCC	Intergovernmental Panel on Climate Change	http://www.ipcc.ch
ISDR	International Strategy for Disaster Reduction	http://www.unisdr.org/isdrindex.htm
JLG	Joint Liaison Group Publication on Adaptation under the frameworks of the CBD, UNCCD and the UNFCCC	http://www.cbd.int/cooperation/liaison.shtml http://unfccc.int/resource/docs/publications/adaptation_eng.pdf
OHCHR	Office of the United Nations High Commissioner for Human Rights	http://www.ohchr.org/EN/NewsEvents/Pages/ClimateChangeIP.aspx
Ramsar Convention	Ramsar Convention on Wetlands of International Importance especially as Waterfowl Habitat	http://www.ramsar.org
TGICA	IPCC Task Group on Data and Scenario Support for Impact and Climate Analysis	http://ipcc-wg1.ucar.edu/wg1/wg1_tgica.html
UNCCD	United Nations Convention to Combat Desertification	http://www.unccd.int
UNCG	United Nations Communications Group	http://unic.un.org/aroundworld/unics/en/partnerships/communicationGroup/index.asp
UNCTAD	United Nations Conference on Trade and Development	http://www.unctad.org/Templates/StartPage.asp?intItemID=4342
UNDAC	United Nations Disaster Assessment and Coordination	http://ochaonline.un.org/Coordination/FieldCoordinationSupportSection/UNDACSystem/tabid/1414/Default.aspx
UN delivering as one	UN delivering as one	http://www.unsystemceb.org/oneun/ http://www.un.org/events/panel
UN-DESA	United Nations Department of Economic and Social Affairs	http://www.un.org/esa/desa
UNDG	United Nations Development Group	http://www.undg.org
UNDP	United Nations Development Programme	http://www.undp.org/climatechange http://www.adaptationlearning.net http://sdnhq.undp.org/gef-adaptation/projects/index.php
UNEP	United Nations Environment Programme	http://www.unep.org/themes/climatechange/default.asp

UNEP FI	United Nations Environment Programme Finance Initiative	http://www.unepfi.org/index.html
UNESCO	United Nations Educational, Scientific and Cultural Organization	http://ioc3.unesco.org/unesco-climate
UNFCCC	United Nations Framework Convention on Climate Change	http://www.unfccc.int/4159.php
UNFPA	United Nations Population Fund	http://www.unfpa.org
UN-HABITAT	United Nations Human Settlements Programme	http://www.unhabitat.org
UNHCR	Office of the United Nations High Commissioner for Refugees	http://www.unhcr.org
UNICEF	United Nations Children's Fund	http://www.unicef.org/index.php
UNIDO	United Nations Industrial Development Organization	http://www.unido.org/index.php?id=o71841
UNITAR	United Nations Institute for Training and Research	http://www.unitar.org/
UN-Oceans	UN-Oceans	http://www.oceansatlas.org/www.un-oceans.org/Index.htm
UN OCHA	United Nations Office for the Coordination of Humanitarian Affairs	http://ochaonline.un.org/
UN Security Council	Security Council	http://www.un.org/Docs/sc
UNU-EHS	United Nations University Institute for Environment and Human Security	http://www.ehs.unu.edu
UN-Water	UN-Water	http://www.unwater.org
UN Works	UN Works	http://www.un.org/works/sub4.asp?lang=en&id=9
UNWTO	World Tourism Organization	http://www.unwto.org/climate/index.php
WB	World Bank Group	http://www.worldbank.org
WCRP	The World Climate Programme	http://www.wmo.int/pages/prog/wcp/index_en.html
WFP	World Food Programme	http://www.wfp.org
WHO	World Health Organization	http://www.who.int/globalchange/en
WMO	World Meteorological Organization	http://www.wmo.int
