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REPORT BY THE DIRECTOR-GENERAL ON A REFINED UNESCO STRATEGY FOR ACTION ON CLIMATE CHANGE

SUMMARY

Pursuant to 179 EX/Decision 15, the Director-General hereby submits for consideration by the Executive Board the revised UNESCO strategy for action on climate change, as contained in the Annex to this document.

There are no additional policy implications of a financial or administrative nature.

Action expected of the Executive Board: decision proposed in paragraph 4.

1. At its 179th session, the Executive Board, while approving in principle the overall terms of the UNESCO Strategy for Action on Climate Change, as contained in Annex I of document 179 EX/15, requested the Director-General to submit to it at its 180th session a strategy that had been refined in the light of the discussions held during the 179th session of the Executive Board (179 EX/Decision 15). In refining the document, the Secretariat has been guided by the Board's emphasis on a more focused strategy aiming at helping Member States to build and maintain the requisite knowledge base, and to adopt measures to adapt to the impacts of climate change, contribute to the mitigation of its causes, and strengthen sustainable development.

2. Facilitated by the establishment of the intersectoral platform "UNESCO action to address climate change", the refinement of the strategy has also taken into due consideration the call for increased intersectoral cooperation and enhanced synergies among UNESCO's science programmes. The strategy has furthermore been refined in line with ongoing efforts to promote a United Nations system-wide approach to climate change, led by the Chief Executives Board for Coordination (CEB) and its High-Level Committee for Programmes (HLCP).

3. The proposed refined UNESCO strategy for action on climate change for consideration by the Executive Board is contained in the Annex to this document, the implementation of which can be achieved, during the present biennium, without any financial or administrative implications to document 34 C/5.

Action expected of the Executive Board

4. The Executive Board may wish to adopt a decision along the following lines:

The Executive Board,

1. Recalling 179 EX/Decision 15,

2. Having considered document 180 EX/16,

3. Approves hereby the refined UNESCO strategy for action on climate change, as contained in the Annex to document 180 EX/16.

ANNEX

THE UNESCO STRATEGY FOR ACTION ON CLIMATE CHANGE

I. Executive summary

1. The UNESCO Strategy for Action on Climate Change (the "Strategy") aims at helping Member States to build and maintain the requisite knowledge base, and to adopt measures for adapting to the impacts of climate change, contribute to the mitigation of its causes, and enhance sustainable development. The Strategy seeks to ensure that UNESCO's actions are coherent with and supportive of the emerging United Nations system-wide approach to climate change and the Bali Road Map launched at the UNFCCC COP-13 in Bali in December 2007. It consists of an integrated multidisciplinary programme offering Member States capacity-building and technical advice to design and implement evidence-based policies and projects at the local, national, subregional and regional levels. It draws on two principal pillars: the sound and unbiased generation and use of data, information and research concerning climate change (the knowledge base); and the application of educational tools, specific sectoral measures, public awareness activities and the development of national policy frameworks on climate change adaptation. In line with the Medium-Term Strategy for 2008-2013 (34 C/4 Approved), the Strategy puts special emphasis on Africa and gender equality, as well as on small island development States (SIDS). The Strategy also seeks to make UNESCO itself a carbon-neutral organization. The Strategy will be complemented by a detailed plan of action. The implementation of the Strategy and the plan of action will be managed through the Intersectoral Platform for Action to Address Climate Change, which will provide updated information via a dedicated UNESCO climate change web portal (www.unesco.org/en/climate-change) linked to the gateway to the United Nations system's work on climate change (http://www.un.org/climatechange/).

II. Context

2. The United Nations Secretary-General has labelled climate change as the "defining issue of our era". The Fourth Assessment Report of the Intergovernmental Panel on Climate Change (IPCC) – honoured as co-recipient of the 2007 Nobel Peace Prize for its work – outlines the strongest case yet for a warming planet influenced largely by human activities. Impacts of climate change are already being felt, often with significant economic consequences, and impacts on water resources, ecosystems, agriculture, coastlines, urban areas, heritage, human migration and health. These consequences will grow in time, affecting not only the environment but also social and economic development in many vulnerable regions and exacerbating issues already of concern in the areas of human rights, gender equality and security, with a disproportionate impact on developing countries, especially in Africa.

3. Owing to the accumulation of greenhouse gas emissions to date, reducing emissions alone will not obviate climate change impacts, and effects will persist for many centuries even after atmospheric greenhouse gas concentrations are stabilized. Adaptation to climate change is therefore a necessity. Without a stable climate, and without adequate knowledge of future climate change trends, the internationally agreed development goals (IADGs), including the Millennium Development Goals (MDGs), may be jeopardized. Addressing this issue requires an interdisciplinary approach. The Organization will therefore draw on the combined action of its five major programmes: education, natural sciences, social and human sciences, culture, and communication and information, to assist Member States in addressing this issue.

4. The main goal of the Strategy is therefore to help ensure that UNESCO's competencies, human and financial resources are targeting the needs of Member States related to climate change in a focused, efficient and integrated manner, consistent with the Organization's mandate, the Medium-Term Strategy for 2008-2013 (34 C/4 Approved), and the necessity to avoid overlap and to enhance synergies within the United Nations system.

III. The UNESCO Strategy and the United Nations system: avoiding overlap and enhancing synergies

5. The United Nations system is fully cognizant of the fact that it needs to "deliver as one", including when addressing climate change challenges. Under the auspices of the Chief Executives Board for Coordination (CEB) and its High-Level Committee for Programmes (HLCP), a series of consultative meetings on United Nations system cooperation on climate change have identified key thematic areas of action for the United Nations system as a whole in support of global, regional and national action on climate change (see Box I).

Box I: The Chief Executives Board (CEB) and climate change

In April 2007, the United Nations Secretary-General requested CEB/HLCP to undertake an assessment of the current role of the United Nations in climate change and how it can position itself to play a central role in international efforts to address its negative implications. Accordingly, CEB addressed climate change at its October 2007 session, in the wake of the informal consultations held by the President of the United Nations General Assembly on 31 July and 1 August 2007 as well as the High-Level Event on Climate Change, convened by the United Nations Secretary-General on 24 September 2007, at which the assembled world leaders expressed their commitment and sense of urgency to tackle climate change through concerted action. The Director-General participated in this High-Level Event.

In light of UNFCCC/COP deliberations and the broader mandates and capacities in the United Nations system, coordination efforts under the CEB framework will initially focus on several major issues, namely: adaptation; technology transfer; capacity-building; reduction of emissions from deforestation and forest degradation (REDD); and mitigation/finance, as well as crosscutting areas: science, assessment, monitoring and early warning; supporting global, regional and national action; public awareness; and a climate neutral United Nations.

On the recommendation of UNESCO and other organizations, scientific research and assessment as well as climate monitoring were identified as separate identifiable action pillars. They are featured in the chapter on "science, assessment, monitoring and early warning: foundations of the work of the United Nations on climate change" of United Nations General Assembly resolution 62/644. UNESCO, together with the World Meteorological Organization (WMO), has been charged with the role as convenor for United Nations agencies active in the cross-cutting area of science, assessment, monitoring and early warning.

UNESCO has also been expected to assume the lead role in the organizational work of the HLCP working group that is dealing with sectoral adaptation strategies in the field of education, particularly in regard to education for sustainable development. The other areas where UNESCO is expected to make a contribution include energy, disaster risk reduction, health, population and human settlements, oceans and water.

6. In the context of the Strategy, UNESCO will ensure that it avoids overlap with other United Nations agencies, that synergies are enhanced and that the Organization fulfils its mandate as a convenor, together with WMO, for the United Nations agencies and beyond in the cross-cutting area of science, assessment, monitoring and early warning.

7. In addition, UNESCO will support Member States, at their request, with information and technical capacity-development and policy advice in the context of the UNFCCC process. Each United Nations body has a role in reinforcing this collective effort and in supporting the negotiating process of an agreed outcome on long-term cooperation under the UNFCCC. This includes building capacity of developing country negotiators in climate negotiations.

IV. Main focus areas of the Strategy

8. The Strategy focuses on three main areas in which UNESCO can provide real contributions: (i) building and maintaining the climate change knowledge base: science, assessment, monitoring and early warning; (ii) promoting mitigation and adaptation to climate change through enhanced education and public awareness; and (iii) moving towards a carbon/climate-neutral UNESCO.

IV.1 UNESCO's global priorities

9. The Strategy is drafted within the framework of the Medium-Term Strategy for 2008-2013 (34 C/4 Approved). In particular, document 34 C/4's two global priorities, namely Africa (see Box 2) and gender equality (see Box 3), are addressed in all action areas identified in the Strategy. The Strategy also addresses the priority groups of small island developing States (SIDS – see Box 2), least developed countries and other vulnerable and excluded groups. The Strategy, which may evolve and be revised over time, will be complemented by a detailed plan of action showing activities foreseen, resources to be mobilized, expected results, performance indicators and timetable for implementation.

Box 2: Climate change and Africa – as well as SIDS

Current climate models and knowledge predict that climate change will adversely affect Africa and SIDS disproportionately.

Recognizing that climate change could endanger future well-being of the population, ecosystems and socio-economic progress of Africa and cognizant of the vulnerability of African economic and production systems to climate change and climate variability and the continent's low mitigation and response capacities, the Assembly of the African Union adopted at its eighth ordinary session (29-30 January 2007, Addis Ababa, Ethiopia) a decision and a Declaration on Climate Change and Development in Africa (Doc. Assembly/AU/12 (VIII) and Assembly/AU/Decl.4 (VIII)).

Within this framework, UNESCO aims to improve education, outreach and the policy dimension of addressing climate change in African countries, in addition to its direct contribution to the regional knowledge base. Particular attention will be paid to the development of science and technology and related policies, as stated in the UNESCO contribution to the African Union Science and Technology Consolidated Plan of Action.

To assist with adaptation strategies along the coast of West Africa the continuing IOC Integrated Coastal Area Management Project will incorporate a human dimensions component. This is an example of what will become common practice: incorporating social and policy aspects into all ongoing climate-related science projects in the region. In the area of water UNESCO's International Hydrological Programme (IHP) is implementing projects related to knowledge generation and capacity-building for water management under climate stress in all regions of Africa. IHP is also studying the impacts of global changes on river basins and aquifer systems with a focus on transboundary aquifers, enhancing resilience to climate disasters (flood and drought) and urban water needs. This includes an experimental drought monitor project for Africa that provides near real-time monitoring of land surface hydrological conditions, based on modelling supported by remote sensing to improve capacity-building and adaptation to climate change.

The Sustainable Management of Marginal Drylands Project will enter a second phase in 2009, and review land use change scenarios including climate change in Africa, to best manage natural resources, including forests, promote biodiversity conservation and combat desertification. UNESCO will also focus on building capacity for decentralized rural electrification using solar equipment and assisting in identifying priorities for national renewable energy policies. African biosphere reserves, particularly in Central Africa and the Congo Basin, will be promoted as sites for pilot projects for reduced emissions from deforestation and degradation (REDD), thus addressing climate change mitigation.

Actions foreseen for SIDS, vulnerable to sea level rise, increased storm severity, and changes in the ecology of coastal seas, will focus on education and outreach to enhance sustainable development and adaptation strategies. Actions will include further expansion and refocusing of the Internet forum "On the Frontlines of Climate Change" as a multilingual vehicle for indigenous peoples, small islands and vulnerable communities to exchange grassroots lessons in adaptation. A report on sustainable development needs from the viewpoint of Caribbean countries, to follow up on a similar exercise in Pacific islands, will be published. The global Sandwatch Project on beach monitoring and sustainable management of coastal environments will be expanded with educational and outreach including video, e-newsletter, website, a manual and exchange visits between students from different SIDS.

Box 3: Climate change and gender

As stated by the Intergovernmental Panel on Climate Change (IPCC), "climate change impacts will be differently distributed among different regions, generations, age, classes, income groups, occupations and genders" (IPCC, 2001). Gender-specific issues at stake include: (i) women are affected differently and more severely by climate change and its impact on agriculture, natural disasters, climate-change induced migrations because of social roles, discrimination and poverty; (ii) women are largely under-represented in decision-making processes regarding climate change, greenhouse gas emissions and adaptation/mitigation; and (iii) there are significant gender biases in carbon emissions and hence carbon footprints due to women's and men's economic production and consumption patterns.

As women suffer disproportionaly from poverty, they will also suffer most when erratic weather brings droughts or floods to marginal lands or crowded urban areas where poverty is most felt. While existing evidence underscores the vulnerability of women to climate change, there is also a wealth of evidence which underlines that women play an important role in supporting households and communities to mitigate the effects and adapt to climate change. Women are most of the world's farmers, household resource managers and caregivers; and women have led – and continue to lead – many of the most innovative responses to environmental challenges. At the local level, women provide particular kinds of social capital for mitigation, adaptation and coping with environmental change, actively organizing themselves during and after disasters to help their household and community. Women are also in the best position to influence changes in behaviour for better disaster risk management as well as participate in and manage post-disaster efforts.

Women are also able to map risks and vulnerabilities from their own standpoint and to play an important role in early warning. Women's knowledge in adaptation (traditional and community-specific) is an important resource in education for sustainable development.

As effective agents of change in relation to mitigation, adaptation and education for sustainable development, enhancing women's capacities to address climate change is a critical area of action. Women's access to resources as well as their involvement in decisions and the development of policies related to climate change is of utmost importance both to identify their specific needs and priorities but also to make full use of their knowledge and expertise, including traditional practices.

IV.2 Building and maintaining the climate change knowledge base: science, assessment, monitoring and early warning

10. The response to climate change has to be science-based, benefit from comprehensive analysis, and be continuously updated by monitoring of data, trends and new insights, in short, the knowledge base. The provision of unbiased and technically sound data and information is fundamental to all climate change action: it is critical for enabling adaptation and mitigation policies as well as for ensuring that activities are based on sound scientific evidence.

11. The capacity of countries to monitor climate trends and utilize climate predictions is crucial in assessing the impacts of mitigation activities and effective strategies for adaptation to climate

change, as well as in developing early warning systems on extreme climate events and hazards such as floods and droughts. Increased investment in scientific research to improve climate prediction, reduce uncertainties, and generate more precise and quantitative information on the impact of climate change at regional and local levels is required.

12. The IOC is the recognized United Nations focal point and mechanism for global cooperation in the study of the oceans, a key climate driver. Through the Joint WMO-IOC Technical Commission for Oceanography and Marine Meteorology (JCOMM), it coordinates and manages the implementation of an operational ocean observing system in support of the Global Ocean Observing System (GOOS) and the Global Climate Observing System (GCOS), which support and report to the UNFCCC. In addition, UNESCO's oceans and climate programmes carry out global and regional research and monitoring programmes on climate impacts on fisheries and coral reefs, as well as the impacts of ocean acidification on marine ecosystems.

13. A range of other science-related activities is under way including the World Climate Research Programme (WCRP) jointly sponsored by WMO, UNESCO/IOC and the International Council for Science (ICSU), generating the new science that enable rigorous and unbiased reviews of the state of knowledge on climate processes and impacts.

14. UNESCO and its Intergovernmental Oceanographic Commission (IOC) as well as the World Meteorological Organization (WMO) have played and will continue to play a central role in providing authoritative scientific and technical information that has enabled evidence-based policy- and decision-making and informing the work of the IPCC.

15. Early warning and assessments, which identify emerging challenges, enable countries to pre-empt, respond and adapt to the potential impacts of climate change. Improvements in the availability and sharing of such information would greatly assist countries in developing long-term adaptation strategies and integrating these into national development and poverty reduction plans and strategies as well as United Nations system common programming exercises. The link between disaster risk reduction and climate change points to the need to increase the resilience of communities to extreme weather phenomena through systematic planning and capacity development, including through gender responsive components.

16. UNESCO will continue to assist Member States to provide a platform for enhancing cooperation in knowledge-sharing, policy advice and education for disaster preparedness and mitigation and supporting the further development of risk reduction networks including tsunami and other hazard warning systems (such as storm-surges, storms, floods, landslides and droughts). It will also enhance education and public awareness on these topics and focus on promoting regional hazard monitoring and warning systems including tsunami warning systems and regional flood alert systems. UNESCO will contribute to the United Nations Platform on Space-based Information for Disaster Management and Emergency Response, which provides access to and develops the capacity of all countries to use space-based information to support disaster management.

17. Climate change will have significant impacts on fresh-water resources, affecting both their availability in space and time and the frequency and severity of floods and droughts. The consequences are far-reaching and are likely to be felt most strongly by the most vulnerable. These impacts could undermine development achievements, affect human security and livelihoods, significantly impact agriculture and industry, and trigger population movement and migration. Water scarcity could also trigger social disharmony. UNESCO hosts the World Water Assessment Programme, which produces the United Nations inter-agency World Water Development Report (WWDR), the United Nations system's authoritative reference document tracking the water-related MDGs.

18. UNESCO's IHP will continue to coordinate an international scientific cooperative programme addressing adaptation to climate change, including assessing the effects of climate change on surface water, on extremes, both floods and droughts, groundwater, water and life support

systems, 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. In this regard, UNESCO will also draw on contributions from relevant category 2 institutes and centres. The inter-agency International Flood Initiative (IFI), which includes the following sponsors: WMO, UNU, International Association of Hydrological Sciences (IAHS), International Strategy for Disaster Reduction (ISDR), working through International Centre for Water Hazard and Risk Management (ICHARM), promotes an integrative approach to flood management in a changing world which takes advantage of the benefits of floods and the use of flood plains, while reducing social, environmental and economic risks. The third edition of the WWDR will be published in 2009 and focus on "Climate Change and Water", and will establish the links between water and climate change, the global food crisis, energy, demographics, economic development and changes in land use patterns.

19. Using the World Network of Biosphere Reserves (WNBR), the UNESCO Man and the Biosphere (MAB) Programme and IHP's Flow Regimes from International Experimental and Network Data (FRIEND) and Hydrology for the Environment, Life and Policy (HELP) networks, UNESCO will promote research, monitoring and assessment of climate change impacts on the water cycle, water governance, and their links to human welfare and sustainable development.

20. UNESCO's Open Initiative with space agencies will use space-based remote sensing technologies to monitor and map biosphere reserves and World Heritage sites in order to provide data that will enable improvements in their management, particularly in the face of climate change. The Open Initiative is able to demonstrate changes at a site following disturbances or natural disasters.

21. Recognizing the interlinkages between marine, coastal, hydrological and terrestrial resources and ecosystems and climate change issues, collaboration will be strengthened between IOC, IHP and MAB on climate change science, assessment, monitoring and early warning.

22. UNESCO's Local and Indigenous Knowledge Systems programme and small island developing States (SIDS) intersectoral platform will continue to carry out research and assessments based on local and indigenous knowledge systems that are of particular relevance to SIDS and other communities experiencing early impacts from climate change.

23. Areas of focus will include local-level climate observations, understanding strategies devised by local communities to cope with changing environments, and identifying needs and ensuring the relevance of adaptation measures for vulnerable populations in remote areas such as small islands, high altitudes, humid tropics and the circumpolar North.

24. UNESCO's long-standing expertise and knowledge base in specific climate-related areas noted above cannot be used in a vacuum – an integrated approach is essential to address the range of environmental, economic, social, educational, informational, attitudinal and behavioural issues involved and to respond to the needs of developing countries, and in particular the special needs of Africa, and to address the gender equality dimension.

25. Building on its sectoral competencies in the natural and social and human sciences, the fields of education, natural and cultural heritage, public awareness and the media, UNESCO will contribute to building in an upstream manner the knowledge base of climate change, and to promoting through a downstream delivery chain its translation into specific interventions, especially at the country level.

26. The human dimensions of climate change need further attention if appropriate guidance is to be provided to policy-makers. It is vital, for example, to consider the disproportionate impact of climate change on human settlements and on migrations. This information must be available in order to assist Member States, particularly developing countries, and in particular in the priority

region of Africa, to develop short-term, medium-term and long-term adaptation strategies and integrate these strategies into national development, energy and poverty-reduction plans.

27. In his address to the thematic debate at the 177th session of the Executive Board, Rajendra Pachauri, Chair of IPCC, noted that the United Nations system has not made sufficient efforts in the field of social science research to address the human dimensions of climate change and that UNESCO is an appropriate organization for looking at this complex issue, including for promoting a constructive dialogue and debate on the ethics of climate change

28. In the coming years, UNESCO will also seek to contribute to addressing climate change in the areas of social transformations, migration and urban development.

29. Throughout its efforts to enhance the knowledge base, emphasis will be placed on seeking to enhance collaboration and improve synergies linking the competencies of UNESCO's different sectors in general and their scientific programmes in particular.

IV.3 Promoting mitigation and adaptation to climate change through enhanced education and public awareness

30. Mitigating climate change requires a multifaceted approach, spanning all areas of policy- and decision-making. Comprehensive national development strategies are a key tool for mitigating climate change, as is the integration of climate change impacts into development programmes. There exists a clear recognition that development and adaptation as well as mitigation efforts must be complementary. The importance of national adaptation programmes of action must be highlighted, as well as the need to ensure that these programmes address broader adaptation needs.

31. As reiterated in Bali, education will be a pivotal driver for addressing the climate change challenge. An educated population aware of the challenges of sustainable development and climate change will be necessary to lead and live the changes required to respond to these challenges, for example by changing its consumption patterns. As 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, and as task manager for Chapter 36 (Promoting Education, Public Awareness and Training) of Agenda 21, expectations for UNESCO in this field are high.

32. To meet these expectations, UNESCO will promote the integration of climate change into national curricula as well as into lifelong learning programmes. To that end, UNESCO will develop and disseminate teaching, training, learning and resource materials on climate issues. Teacher training activities will be adapted accordingly.

33. The DESD – which UNESCO will contribute to through its five sectors – will, within its four priority areas (promoting basic education, reorienting and revising education programmes, developing public understanding and awareness, and providing practical training) 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 will promote 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.

34. UNESCO's Associated Schools Network will be used for pilot testing of prototype materials and awareness-raising tools, providing information to educators, teachers and students worldwide. Support for higher education institutions will be provided through the UNESCO Chairs programme and the UNITWIN network to increase local, national and regional capacities to make informed

decisions about climate change, enable full participation in international debates, develop local adaptation and mitigation strategies, and develop capacities to take full advantage of opportunities for economic development, technological innovations and market incentives that may arise from mitigation actions, resource management practices and international conventions.

35. Public information is a key driver of political will and informed action by individuals is fundamental to addressing climate change. Both are dependent on citizens' understanding and awareness of the causes, effects and means of addressing climate change. Engagement with civil society organizations worldwide is essential. Science communication, the creation of scientifically literate societies, and nurturing curiosity in children and students are vital to find and implement solutions. The International Year of Planet Earth offers a vehicle for awareness-raising on climate change among UNESCO Member States and the public at large.

36. UNESCO's communication and information programme will work to advance shared knowledge and understanding through all means of mass communication and to promote the free flow of ideas by word and image. UNESCO will seek to play an important role in ensuring access to sound and unbiased climate information and enhancing the capacity of the media, especially national and community broadcasters, to understand and convey climate change information in an accurate and balanced manner. UNESCO will base its public awareness actions on the findings of the Fourth Assessment Report of the IPCC, and the definition and principles of the UNFCCC and the Kyoto Protocol. Messages will be understandable and reach out to society at large.

37. UNESCO's environmental ethics programme will work to improve education and awareness on the ethical dimensions of climate change, addressing questions crucial for decision-making such as how to assess the needs and rights of future generations, and how to determine what is worth protecting and at what cost or consequence.

38. Men and women have different access to public awareness information, including early warning systems. These societal and cultural issues must be an integral part of providing truly universal access to information, especially with a view to enhancing gender equality in this vital area.

39. UNESCO will therefore work to raise awareness of gender specificities in adaptation and mitigation to climate change, including through the collection and use of sex-disaggregated data, mapping of gender-specific emissions profiles, and differences in mitigation and adaptive capacities and strategies.

40. Energy is at the heart of the climate mitigation agenda. As energy demand continues to grow, the ability to address energy issues, including energy access, efficiency and use of renewable energy sources, will be paramount in enabling development and climate change priorities to be met in a mutually reinforcing way. Renewable sources of energy offer win-win solutions by increasing energy access while mitigating the effects of climate change. This requires education and information about the use and potential of renewable energy sources, dissemination of relevant scientific knowledge and technology, aimed at building local capacities and competencies.

41. To ensure sustainable and environmentally sound energy supplies, joint efforts are required at the international level. UN-Energy – with UNESCO as an active member – is the United Nations system-wide collaborative framework for energy issues. UN-Energy's thematic clustering offers the potential to facilitate a more integrated and effective United Nations approach to energy and climate issues.

42. In this context, UNESCO will support education, training, information exchange, best practices and national strategy initiatives related to the development and applications of renewable energy adapted to local needs and for facilitating access to state-of-the-art technologies.

43. Recognizing that the impacts of climate change are affecting many World Heritage sites and are likely to affect many more in the future, the Intergovernmental World Heritage Committee asked UNESCO's World Heritage Centre and its advisory bodies to investigate the impacts of climate change on World Heritage and strategies to address them. This led to the 2006 study "Predicting and Managing the Impacts of Climate Change on World Heritage" and a "Strategy to Assist States Parties to Implement Appropriate Management Responses". In 2007 a compilation of 26 case studies on the impacts of climate change on World Heritage was prepared and widely distributed as a means of raising awareness.

44. In October 2007, the General Assembly of States Parties to the World Heritage Convention adopted a policy document on the Impacts of Climate Change on World Heritage Properties. The document identifies key research priorities for World Heritage sites, using them as laboratories for long-term climate change impact monitoring and testing of innovative adaptation solutions, emphasizes the importance of building synergies with other international conventions and organizations, and discusses the legal aspects of responding to the challenges. Consequently, concern for climate change has been mainstreamed into the various operational mechanisms and processes of the Convention.

45. UNESCO will provide support to States Party to the World Heritage Convention in implementing preventive and corrective measures to combat climate change impacts on natural and cultural World Heritage, including raising awareness and sharing of knowledge and experience, and developing pilot projects.

46. The 2008 Madrid Action Plan for the WNBR and MAB emphasizes climate change challenges and the potential to test and apply policies for adaptation and mitigation for climate change in biosphere reserves in coordination with other intergovernmental programmes.

47. The WNBR will be used for education and public awareness regarding innovative combinations of afforestation, reforestation, avoided deforestation, rural energy and infrastructure development and urban planning and promoted as a suitable platform for United Nations cooperation.

48. Priority should be given to actions in sites that are designated both as World Heritage sites, biosphere reserves and/or geoparks. This, for example, could include work on tourism and climate, training of site managers, and actions to enhance the adaptive capacity of sites and communities to cope with the impacts of climate changes.

IV.4 Moving towards a carbon/climate-neutral UNESCO

49. The United Nations system needs to lead by example. The United Nations Secretary-General has launched a new initiative to "Green the United Nations". Taking the opportunity afforded by the renovation of its Headquarters in New York, he is committed to making the United Nations a model of efficient use of energy and resources. Subsequently, the CEB adopted in October 2007 a statement on "Moving towards a climate-neutral United Nations", prepared by the Environment Management Group (EMG), committing the executive heads of all organizations of the United Nations system – including UNESCO – to move their organizations towards climate neutrality in their respective headquarters and United Nations centres for facility operations and travel.

50. By the end of 2009, the organizations will estimate their greenhouse gas emissions consistent with United Nations best practices, undertake efforts to reduce greenhouse gas emissions to the extent possible, and analyse the cost implications and explore budgetary modalities – including consulting with governing bodies as needed – of purchasing carbon offsets to eventually reach climate neutrality. This commitment was made with a view to achieving the goal of climate neutrality, by reducing emissions first and then offsetting the remainder through the purchase of offsets from the UNFCCC Clean Development Mechanism only from extrabudgetary

resources. The focus of action will be on air travel and its possible substitution through videoconferencing, sustainable procurement, energy options for buildings, etc. UNESCO will profit from UNEP and UNCTAD's pilot experiences in this regard, including a full costing of certain measures required before committing to a plan of action. CEB supported the development and implementation of a United Nations system-wide strategy for achieving climate neutrality, the monitoring of the system's collective efforts, and a reporting back on progress and difficulties encountered.

51. In June 2007 a "green audit" of UNESCO operations at Headquarters was launched, based on ISO 14001 methodology. Phase 1 of the audit reported to the Director-General in December 2007. It benchmarked environmental, health and safety impacts of operations, set targets for improvements and defined strategies to inform the development of an environmental management system. This approach is in line with the Strategy and Action Plan for a Climate-Neutral United Nations, prepared by the EMG. A working group was set up by ADG/ADM to oversee implementation of the green audit's recommendations. Follow-up actions under discussion include introduction of a recycling scheme, environmental improvements in the print and workshops and staff awareness-raising sessions.

52. In the future, these actions should be broadened to incorporate, firstly, measures for sustainable procurement and, subsequently, reductions in energy consumption patterns including transport. Phase 2 of the audit will have reported in July 2008. It is measuring the emissions of greenhouse gases by UNESCO Headquarters using a methodology (ISO 14064) compatible with that of the EMG. Phase 2 provides a baseline analysis of carbon emissions, sets targets for reductions and examines the budgetary implications of carbon offsetting through the purchases of offsets from the UNFCCC Clean Development Mechanism. The work of the green audit has been discussed by the EMG, including the UNESCO approach to environmental assessment.

V. Implementation modalities

53. The Strategy will be implemented in close partnership with Member States, other organizations of the United Nations system, and other relevant public and private stakeholders, such as bilateral development partners, NGOs and civil society. The Strategy will draw on existing partnerships developed with a broad range of institutions through UNESCO's over 40 current climate-related activities. Opportunities for increased cooperation and synergies among activities and efforts will be seized through enhanced intersectoral and intrasectoral cooperation, such as among UNESCO's scientific programmes, and cooperation with relevant UNESCO institutes, centres, chairs and UNITWIN networks, as well as with networks of UNESCO sites (World Heritage, Biosphere Reserves) and Geoparks.

54. The implementation of the Strategy and the associated plan of action will be managed and promoted through the intersectoral platform "UNESCO Action to Address Climate Change", led by ADG/IOC, under guidance of its steering committee, the Intersectoral Task Force on Global Climate Change. The platform will seek to mobilize extrabudgetary resources for its activities in line with the Strategy. Coordination and cooperation with other relevant intersectoral platforms has also been established.

55. Information on the Strategy, progress on its implementation and results achieved will be posted on a dedicated UNESCO web portal (www.unesco.org/en/climatechange) linked to the Gateway to the United Nations system's work on climate change (http://www.un.org/climatechange/index.shtml).