



International Hydrological Programme

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CO-OPERATION WITH OTHER UNESCO ENVIRONMENTAL PROGRAMMES

Item 9.3 of the provisional agenda

SUMMARY

This document initially summarizes specific activities of co-operation with other UNESCO environmental programmes and, subsequently, those that also involve an intersectoral component.

The Council may wish to comment on the activities carried out and is invited to review foreseen activities.

CO-OPERATION WITH MAB

1. The co-operation between IHP and MAB is clearly expressed through the implementation of the joint IHP/MAB Main Line of Action, which has continued since the 2002-2003 biennium, and is titled *Managing Land-Water-Habitat interactions through an Ecosystem Approach* in the 2006-2007 biennium. The current cooperation encompasses a wide range of fields geared towards incorporating the ecosystem approach in water resources management, with emphasis on ecohydrology, the urban environment, mountains and drylands. Detailed information about the activities on ecohydrology and urban environment that are jointly implemented can be found in IHP/IC-XVII/Inf.6. Specific attention has been given to the relationship between water and biodiversity, as well as to landforms and hydrological systems.

2. Regarding desertification, IHP and MAB are cooperating in the organisation of the conference "Future of Drylands" (Tunis, June 19-21, 2006). The partners involved in organisation of the conference include, for example, OSS (Sahara and Sahel Observatory), FAO, UNU, ICARDA (International Centre for Agricultural Research in the Dry Areas) and UNCCD (United Nations Convention to Combat Desertification). While the conference as a whole is coordinated by MAB, IHP is the lead organiser of the session Hydrology and Water Management. A side event on hydrological changes in the Mediterranean is organised with Institut de recherche pour le développement (IRD) in the framework of G-WADI (Global Network for Water and Development Information for Arid Lands).

3. Concerning mountains, collaboration between IHP and MAB focuses on a project on "Global Change in Mountain Biosphere Reserves" to assess the impact and consequences of global climate change on the biophysical environment and socio-economic conditions of mountain people. Additional partners in this endeavor are the Mountain Research Initiative (MRI) which comprises the International Geosphere-Biosphere Programme (IGBP), the International Human Dimensions Programme on Global Change (IHDP) and the Global Terrestrial Observing System (GTOS). Another field of collaboration between IHP and MAB is the Tropical Mountain Cloud Forest Initiative.

CO-OPERATION WITH IOC

4. Close co-operation has been established between IOC and IHP to contribute to the evaluation of the horizontal water fluxes from the landmass to the ocean. The joint activity considers the impact of land-based sources of pollution and the application of isotope techniques to quantify submarine groundwater discharge (SGD) in coastal areas. Moreover, IOC and IHP co-operate with IGBP/SCOR-LOICZ to develop an inter-comparison programme to resolve existing measurement problems and develop new techniques as appropriate.

5. Following the initial assessment of SGD, intercomparison experiments were conducted in Perth (Australia), Sicily (Italy), in Long Island (United States of America), Brazil and in Mauritius. First results from these experiments of the IHP-IOC project were published in the volume "Submarine groundwater discharge: management implications, measurements and effects" in 2004. The scientific results of the project were published in the Journal Science of the Total Environment as a special issue in 2006.

6. IOC and IHP co-operate with the IAEA Isotope Hydrology Division and IAEA Marine Laboratory to develop a research programme on the use of isotope techniques in the study and assessment of SGD. The International Conference on Isotopes in Environmental Studies, Aquatic Forum 2004, was jointly organized and supported by IAEA and UNESCO in

Monte-Carlo, Monaco, in 25-29 October 2004 to present some of the results of the joint activities. Activities of the IHP-IOC project on submarine groundwater discharge was reviewed in the conference, where important presentations on diverse applications of tracers to assess e.g. ground water cycling and coastal pollution were made.

7. IHP contributed with groundwater expertise to the International Workshop on Freshwater-Coastal-Marine Management Interlinkages (Mexico City, January 2006) in preparation for the Global Forum on Oceans, Coasts, and Islands (Paris, January 2006). Both events were organized by the IOC and its partners. In the main Forum, the IHP participated in the panel discussions on linking freshwater to oceans raising awareness on relevant issues such as the long-term and irreversible dangers that polluted terrestrial aquifers pose to coastal regions.

CO-OPERATION WITH IGCP

8. UNESCO's Division of Earth Sciences and the International Union of Geological Sciences' (IUGS) joint International Geological Correlation Programme (IGCP) and IHP have strengthened their cooperation in setting up the Hydrogeological Working Group within the IGCP Board. To strengthen the Science Sector's principal priority focus on freshwater within the Earth Sciences workplan, IHP contributed US\$ 40,000 in the biennium 2004-2005 to IGCP's activities. The IHP identified some topics of mutual interest for the IGCP call for projects. The first approved hydrogeological projects focus on coastal aquifers, karstic aquifers and global networking. Moreover, there is currently a IHP-IGCP joint action with the European Space Agency (ESA) to enhance the use of space technology in water resources assessment and management. IHP's contribution as the key partner to ESA in the TIGER initiative which is aimed at developing sustainable Earth Observation information services for integrated water resources management in Africa, is developed in close consultation with IGCP. UNESCO is the current chair of the CEOS Working Group on Education, Training and Capacity-Building, and, in a coordinated fashion, both IHP and IGCP promote and support activities related to the use of satellite data for timely information as well as the transfer of technology through North-South and South-South cooperation. In the framework of the IHP and IGCP, UNESCO is also ready to explore cooperative actions with Global Earth Observation System of Systems (GEO-GEOSS). A joint meeting was held in March 2006 with the UNESCO/IUGS Geological Application of Remote Sensing (GARS) project and the Integrated Global Water Cycle Observations (IGWPO) where common interests were identified and cooperative activities could eventually be developed related to groundwater through the use of advanced remote sensing techniques.

CO-OPERATION WITH CSI

9. The principal focus of collaboration with Coasts & Small islands Platform (CSI) has been through the intersectoral project on "Urban Development and Freshwater Resources: Small Coastal Cities" in the Mediterranean. The project was launched in 1996 by the UNESCO programme on Management of Social Transformations (MOST) and IHP. Subsequently, the UNESCO Sector for Culture and the IOC became involved. Colleagues in the Field Offices in Beirut, Rabat and Venice were full partners in the planning and implementation of activities. Details are at <http://www.unesco.org/csi/act/dure/dure.htm>. A meeting of experts from the Arab region held in July 2005 came out with a framework for urban water resources assessment and management in Jableh Area in Syria with special focus on environment, archeological, architectural, soil and economic preservation. In the recommendations, UNESCO was asked to coordinate with local authorities and NGOs the review and finalization of the technical project document for submission to potential donors.

10. IHP cooperated with the CSI project "Local and Indigenous Knowledge Systems" (LINKS) in launching the publication "Water and Indigenous Peoples" through a press-conference at the occasion of the 4th World Water Forum and is preparing its translation into Spanish in collaboration with IHP-LAC.

ACTIVITIES INVOLVING SEVERAL UNESCO PROGRAMMES

11 The six Chairpersons of UNESCO's intergovernmental/international natural and social science programmes (IGCP, IHP, IOC, MAB, IBSP and MOST) met in Paris 5-6 October 2005. The International Basic Science Programme that was established in 2005 joined the meeting for the first time. The Steering Group called for a recommitment of UNESCO to science by allocating resources and by making science programmes better known and used to a larger degree. A Joint Communication (see Annex) was issued to the Director-General and to the General Conference recommending, among others, building of synergies and interdisciplinary projects in areas such as the United Nations Decade on Education for Sustainable Development (2005-2014), cities, natural disaster prevention and preparedness, coastal regions and small islands, traditional knowledge.

12. UNESCO published the "Volga Vision" in English and in Russian as a result of the Interdisciplinary Initiative for the Sustainable Development of the Volga-Caspian Basin of UNESCO's intergovernmental natural and social science programmes in 2004. The Vision was presented as scientific input to the UNESCO cross-cutting project the Great Volga River Route coordinated by UNESCO's Education sector in the project's launching meeting in Kazan, the Russian Federation in 2004. Following a resolution of the 32nd General Conference of UNESCO to the project was extended to 2005 and geographically to the Caspian Sea. A UNESCO meeting held in June 2004 in Yaroslavl, Russian Federation identified a number of issues of importance to the whole Caspian Sea Region to be considered in for future UNESCO action. As follow-up to the recommendations, articles were invited from experts in the region as contributions to a volume on knowledge and information for sustainable development of the Caspian Sea. The preparatory phase (PDF Block A) for developing a GEF Medium-sized project was approved for GEF funding. This GEF project, to be executed jointly by IOC and IHP, is directed towards establishing regional and domestic capacity for groundwater and related land management in the coastal zone of the Caspian Sea.

ANNEX

Meeting of the Chairs of
the International Hydrological Programme (IHP),
the International Geoscience Programme (IGCP),
the Man and the Biosphere Programme (MAB),
the Programme on Management of Social Transformations (MOST)
the International Basic Science Programme (IBSP),
and
the Intergovernmental Oceanographic Commission (IOC)

(UNESCO HQ, 5 - 6 October 2005)

Joint Statement to the 33rd session of the UNESCO General Conference

Mr Chairman,
Excellencies,
Ladies and Gentlemen,

The idea of the meetings of the Chairs of the UNESCO scientific programmes-- the International Hydrological Programme, the International Geoscience Programme, the Man and the Biosphere Programme and , and the Intergovernmental Oceanographic Commission -- came as a direct follow up to the UN Conference on Environment and Development held in Rio de Janeiro in 1992. The task of this Group of Chairs was to forge synergies and to develop projects with an interdisciplinary approach to help UNESCO Member States on the road to sustainable development, thinking globally and acting locally. The Management of Social Transformations Programme (MOST) was added in 1995. This year, 2005, the International Basic Science Programme was a newcomer to the table, adding a further dimension to potential cooperative efforts. As the Chairperson of this new Programme, and as the representative of this Group of Chairs, I welcome this opportunity to participate in your meeting today.

The Group of Chairs of these scientific programmes met at UNESCO HQ on 5 and 6 October. Our mandate was to analyse the results of meetings of this group, to take stock of its evolving role, and to plan for the future.

The Group recognized first and foremost that the role of science in society and governance has never been more important. Governments need science for informed decisions on how to address urgent global issues such as coping with climatic change and attaining sustainable development. They need science, technology and innovation as the basic ingredients of all aspects of national and international development, including poverty alleviation and economic growth. The social and human sciences provide governments with the inseparable ethical, social and cultural context. Hence, scientists have an overriding responsibility to help societies to make a transition to deal with all these issues: scientists can, expect and are willing to help political leaders to adopt policies that make sense in the long term.

UNESCO is the main global forum where the political and scientific communities can come together; in addition it is the only nexus for the natural and the social and human sciences. The UNESCO scientific programmes are the main intergovernmental and international programmes which are valid for the developed and the developing world alike. Only UNESCO can provide the framework to set up centres of excellence which promote scientific collaboration and peaceful international relations. *[I can vouch for this from my own personal experience in the establishment of SESAME in Jordan.]*

Yet what do we see? Our Group considers that today science is not making its full potential contribution to UNESCO objectives. Not only are more resources required, but also the science programmes are little known and under-used locally, nationally and internationally. It is time to re-commit UNESCO to science. One immediate opportunity would be the preparation of the new Medium Term Strategy and the Group would be ready and willing to contribute its advice if so asked.

For this, UNESCO's role in providing scientific advice within the UN system should be acknowledged and strengthened.

Within UNESCO itself, measures should be taken to ensure that our scientific programmes maintain their strengths and are of the highest scientific quality. Programmes need to be pro-active to respond to emerging needs. Their governance structures should be re-examined to better mainstream them with government policy. New ways of fund raising should be tested. Synergisms and interdisciplinarity projects should be built in areas such as the UN Decade on Education for Sustainable Development, cities, natural disaster prevention and preparedness, coastal regions and small islands, traditional knowledge. An integrated scientific approach should be actively promoted. For example in relation to obtaining sound basic data and ground truth for the Global Earth Observation System of Systems, better use should be made of UNESCO's World Heritage sites, the World Network of Biosphere Reserves and Geoparks.

Above all, new measures should be taken to popularise the UNESCO scientific programmes to political leaders, the general public and to the scientists themselves.

The Group of the Chairs of the science programmes of UNESCO stands ready and intends to contribute to the debate on the future evolution of science in UNESCO and its application for the benefit of humankind

Thank you.

Prof. Herwig Schopper, Chair, International Basic Sciences Programme

Prof. Amos Bein, Member of Working Group on Hydrogeology of the International Geoscience Programme

Eng. Mohammed Hamisu Ibrahim, Vice-Chair, International Hydrological Programme

Dr David Pugh, Chair, Intergovernmental Oceanographic Commission

Dr Günter Köck, Vice-Chair, Man and the Biosphere Programme

Prof. Tuomo Melasuo, Vice-Chair, Management of Social Transformations Programme