



International Hydrological Programme

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MAIN LINES OF ACTION FOR THE DRAFT PROGRAMME AND BUDGET FOR 2008-2009 (DRAFT 34 C/5)

Item 11 of the provisional agenda

SUMMARY

As the 6th Phase of IHP comes to an end in December 2007, planning activities for the 7th Phase, covering the period of 2008-2013, are well underway. Given the expected growing importance of water on the international sustainable development agenda it is proposed to continue with the principal priority status of water during UNESCO's 34 C/5 period (2008-2009) and throughout the 34 C/4 period (2008-2013) as well.

Decision required: Paragraph 13.

A preliminary proposal for the Main Lines of Actions for the draft Programme and Budget for 2008-2009 (Draft 34 C/5)

Relation to the Seventh Phase of the International Hydrological Programme

1. The 6th phase of the International Hydrological Programme comes to an end in December 2007. This phase covered the period of 2001- 2007. Planning activities for the 7th Phase of IHP, covering the period of 2008-2013, are well under way (see documents IHP/IC-XVII/11 and IHP/IC-XVII/Inf.9). The principles, and the main thrust, of IHP-VII, entitled *Water Dependencies: Systems under Stress and Societal Responses*, have already been approved by previous sessions of the relevant governing bodies of IHP. IHP-VII, in line with the long-term strategical approach adopted for IHP, i.e., continuity with change, represents yet another extension of the Programme into more applied areas of hydrology.

2. In the design of IHP-VII attention has been paid to the goals and recommendations of recent international conferences both at the level of the UN and at the level of scientific and technical NGOs.

A proposal for the 34 C/4 Principal Priority for the Natural Sciences Sector of UNESCO

3. Ever since *Water and Associated Ecosystems* became one of UNESCO's six principal priorities the impact and visibility of the Organization in water related matters have improved significantly. Given the expected growing importance of water on the international and regional sustainable development agenda, the 39th session of the IHP Bureau, held 3-5 May 2006 at the UNESCO-IHE Institute for Water Education (Delft, The Netherlands) proposed to continue with the principal priority status during the 34 C/4 period as well. In the meantime the Regional Consultative Meeting of the Arab States, in preparation for the 34 C/5, proposed the same recommendation. The overarching theme for the period proposed is *Water for Sustainable Societies*. This theme would continue bring together all UNESCO's freshwater related activities: the International Hydrological Programme, the UNESCO-IHE Institute for Water Education, the UNESCO led UN system wide World Water Assessment Programme, the twelve UNESCO Category II water centres as well as the UNESCO water chairs.

4. While in the '90s IHP main stream concern was linking hydrology to sustainable ecosystems the 21st century requires a more general and generic approach to deal with water as a critical resource to sustain societies that, in turn, depend a great deal upon ecosystem services. However, societal sustainability equally depends upon economic and social sustainability. In order to demonstrate how economic and social sustainability depend on water, and vice versa how the sustainability of water systems at different scales depend on economic and social systems, clearly calls for a truly interdisciplinary approach. Therefore, the IHP-VII draft plan proposes a core programme with five interlinked and interdisciplinary Themes. These are as follows:

- Adapting to the impacts of global changes on river basins and aquifer systems
- Strengthening water governance for sustainability
- Ecohydrology for sustainability
- Water and life support systems
- Water education for sustainable development

5. This interdisciplinary approach needs to be at the cross roads of natural sciences, social and human sciences, education, communication and culture. As UNESCO is defined along these coordinates it is indeed IHP that needs to expand to deal with the interdisciplinary challenge.

Strengthening interdisciplinarity

6. This will require that IHP continues its expansion and excursion to other fields of knowledge. This, however, does not mean that IHP will cease to deal with hydrology as a science. Just the opposite is the case as the track record of IHP clearly demonstrates. There has been a tremendous progress in hydrology in the past fifteen to twenty years, ranging from observation technologies through modeling up to the better understanding of hydrological processes at various scales. However, this progress is not yet there in the daily practice at the level of establishing sustainable water resources policies, development and management, respectively. Most of the time, and in the overwhelming parts of the world, policies are based on outdated knowledge and technology. (To break this dead lock continues to be the focus of IHP/HELP that will also continue during IHP-VII.)

7. The situation is particularly severe in developing countries. Those countries are not prepared to deal with the hydrological extremes that global changes, such as population changes, changes in land use, changes in migratory patterns, changes in urbanization, climatic change and other global drivers, will likely cause. With the probability of extremes likely to change it is equally likely that hydrology dependent processes, such as changes in basin wide water quality dynamics, the impacts of those on human health or changes in food security due to changes in the hydrological cycle, are truly critical issues that need to be addressed in an interdisciplinary framework. While the '90s, and in a large extent IHP too, were characterized by a search for ecosystem sustainability through diversity it is likely the hitherto neglected ethical and cultural diversity considerations that must be mainstreamed during the 21st century to make water dependent societies and economies sustainable with the appropriate consideration of the cultural context.

8. However, there are no capacities, particularly in the developing countries, to effectively deal with these challenges. The lack of appropriate water governance is identified as the root cause of the looming water crisis. This governance issue, however, is strongly linked with appropriate knowledge on water resources. In many parts of the world the assessment of surface and groundwater resources is still missing. The human resources requirements far exceed the available work force. If humanity is determined to reach the MDGs in water in Africa, for instance, one needs to increase the number of water professionals by 300 per cent in ten years time. This is a huge task that calls for a chain reaction in all education systems. Freshwater education must be significantly improved if the water crisis is to be avoided.

9. Capacity building, from institutions to trained personnel, must be the *raison d'être* of UNESCO's activities in freshwater.

Proposed Main Lines of Action for the 34 C/5

10. Keeping these principles in mind it is proposed that the Main Lines of Actions (MLAs) for IHP for the 34 C/5 period, i.e. 2008-2009, cover the following five fields:

- **MLA-1: Developing adaptation capacities against the impacts of global changes on catchments and aquifers**
- **MLA-2: Developing policies for managing the interactions of hydrology, water quality, human and ecosystem health and food security at watershed scale**
- **MLA-3: Improving science based water governance in various socio-economic settings for sustainability**

Joint MLAs with other programmes certainly improve the chances of true interdisciplinarity. It is, therefore, proposed that two further MLAs be incorporated in the 34C/5:

- **Joint MLA-4: Developing social ecohydrology for environmental sustainability (with the Man and Biosphere Programme of UNESCO)**
- **Joint MLA-5: Water education for sustainable development**

11. It is proposed that Cross Cutting Project FRIEND (Flow Regimes from International Experimental and Network Data) is incorporated under MLA-1 while HELP (Hydrology for the Environment, Life and Policy) should be accommodated under MLA-2 or MLA-3.

12. The interdisciplinary initiatives, IFI (International Flood Initiative), ISI (International Sediment initiative) and JIIHP (Joint International Isotopes in Hydrology Programme) could well be accommodated under MLA-1.

13. A draft resolution (see Annex) is herewith submitted to the Council for their consideration and decision.

Annex

**Draft resolution concerning a preliminary proposal for the Main Lines of Actions
for the draft Programme and Budget for 2008-2009 (Draft 34 C/5)**

The Intergovernmental Council of the International Hydrological Programme of UNESCO

Recalling that the planning of the seventh phase of IHP, which corresponds to the 34 C/4 period and is devoted to *Water Dependencies: Systems under Stress and Societal Responses*, is well under way,

Noting that during the relevant regional consultations many Member States have emphasized, in the context meeting the UN Millennium Development Goals (MDGs), the continued importance of freshwater issues in UNESCO and of using an interdisciplinary approach in addressing these issues,

Recommends to the Executive Board of UNESCO that the topic of *Water and Associated Ecosystems* be further pursued as the Principal Priority of the Natural Sciences Sector throughout the 34 C/5 period (2008-2009),

Recommends to the Director-General that the Main Lines of Action (MLAs) concerning freshwater in the Draft 34 C/5 be aligned with the themes of the Draft Plan for the seventh phase of IHP, including the development of two joint MLAs, as follows:

- MLA-1: Developing adaptation capacities against the impacts of global changes on catchments and aquifers.
- MLA-2: Developing policies for managing the interactions of hydrology, water quality, human and ecosystem health and food security at watershed scale.
- MLA-3: Improving science based water governance in various socio-economic settings for sustainability.
- Joint MLA-4: Developing social ecohydrology for environmental sustainability (with the Man and Biosphere Programme of UNESCO).
- Joint MLA-5: Water education for sustainable development.

Invites the Education Sector of UNESCO, the UNESCO-IHE Institute for Water Education and the Man and the Biosphere Programme (MAB) to work closely with IHP in order to implement the joint MLAs within the framework of the two relevant UN decades, the UN Decade on Sustainable Development (DESD) and the UN Decade for Action: Water for All.