

International Hydrological Programme

18th session of the Intergovernmental Council
(Paris, 9 – 14 June 2008)

FOLLOW-UP TO THE REPORT OF THE OVERALL REVIEW COMMITTEE FOR MAJOR PROGRAMMES II AND III

Item 7 of the provisional agenda

SUMMARY

Pursuant to 33 C/Resolution 2 of the 33rd session of the General Conference of UNESCO, the Overall Review Committee for Major Programmes II (Natural Sciences) and III (Social and Human Sciences) was established to review UNESCO's programmes in the natural sciences and the social and human sciences, including the IHP.

The process and conclusions of the Overall Review up to the 176th session of the Executive Board and annotations of the IHP Secretariat were presented in detail to the 40th and 41st sessions of the IHP Bureau (Delft, 13-15 June 2007 and Paris, 26-28 March 2008) in documents IHP/Bur-XL/12 and IHP/Bur-XLI/7.

This document provides an overview of this process, including the relevant decisions made by the IHP Bureau at its 40th and 41st sessions.

INTRODUCTION

1. At its 33rd session, the General Conference decided to launch an overall review of UNESCO's Sciences Programmes (Major Programme II on Natural Sciences and Major Programme III on Social and Human Sciences) in light of the Organization's mandate, country and regional priorities and today's global needs (33 C/Resolution 2). The Director-General was asked to set up a Review Committee and to submit a report on the conclusions and recommendations of the Review Committee through the Executive Board to the General Conference at its 34th session (October 2007), with a view to integrating the agreed conclusions and recommendations into the Programme and Budget (34 C/5) for 2008-2009 and the Medium-Term Strategy (34 C/4) for 2008-2013.

2. The Review Committee submitted its report to the Director-General in March 2007. This report, together with comments by the Director-General and a proposed draft decision, was presented in document 176 EX/7 to the 176th session of the Executive Board in April 2007. The Executive Board requested the Director-General to forward the report to the governing bodies of the intergovernmental science programmes for their information, and to invite those bodies to transmit their comments thereon to the Executive Board.

3. For this purpose, document IHP/Bur-XL/12 was prepared and presented for the consideration of the IHP Bureau at its 40th session. Document IHP/Bur-XL/12 the report (176 EX/7), together with the respective resolution of the Executive Board (176 EX/Decision 7), extensive annotations by the Secretary of IHP on 176 EX/7, and a declaration of water experts from the Arab countries regarding the conclusions and recommendations of the Review Committee. As called for in 176 EX/Decision 7, the IHP Bureau, on behalf of the Intergovernmental Council of IHP, formulated several comments on the report and presented them to the Director-General (see Annex I). In particular, among other issues, the Bureau:

- concurred with many of the conclusions of a general nature contained in the report, drawing attention to the fact that those recommendations were already being addressed within the IHP,
- noted that in the consultations for 34 C/4 and 34 C/5, the Member States overwhelmingly expressed their continued support to freshwater as a principal priority of UNESCO, and that the results of these consultations do not appear to have been adequately reflected,
- expressed a strong opposition to the creation of an overarching scientific advisory board and to the merging of administrative structures, and
- recommended several actions for the implementation of 176 EX/Decision 7.

OVERVIEW OF UNITED NATIONS PROGRAMMES AND INITIATIVES WITH SPECIAL ATTENTION TO FRESHWATER

4. In response to 176 EX/Decision 7, the Director-General took steps to allow for informed decision-making regarding UNESCO's core functions and competencies in the sciences; towards this end an overview of United Nations programmes and initiatives in the natural, social and human sciences, with special attention to freshwater and other issues was prepared. The results of this overview are contained in document 34 C/INF.13.

5. The overview (34 C/INF.13) noted that UNESCO plays a major role in the United Nations system in freshwater research and education, through the International Hydrological Programme (IHP) and the UNESCO-IHE Institute for Water Education. It also noted that IHP is the only intergovernmental scientific and educational programme dedicated to freshwater in the United Nations system, that the UNESCO led World Water Assessment Programme provides an up-to-date global overview of the state and uses of freshwater, and that

UNESCO-IHE is now the largest international postgraduate water education institute in the world and the only body of the United Nations system accredited to confer academic degrees in water resource management.

IMPLEMENTATION PLAN AND IMPLICATIONS FOR IHP

6. In response to the Executive Board's debate on document 176 EX/7, the Director-General established a Task Force on Major Programmes II and III in June 2007, to prepare an Implementation Plan for the sciences at UNESCO, building on the recommendations of the report of the Review Committee and his comments thereon. The Implementation Plan was presented in document 34 C/13 and a summary table is contained in the Annex II.

7. One of the main consequences of the Review Committee Report for IHP was due to recommendation 7 (Rigorous and transparent selection, assessment and evaluation of programmes and projects are required), noting that "during its "information-gathering" phase, the Committee noted the imbalance in funding in the science programmes in favour of water-related activities". With regards to this observation, the Director-General, in his comments on the Committee Report, drew attention to the fact that the additional financial resources accorded to water-related activities are a direct result of UNESCO's decision to establish principal priorities for each major programme, starting with document 31 C/5, in view of UNESCO's limited resources and the need for improving the focus of UNESCO's actions. The Director-General also noted that "Water and associated ecosystems" has been approved as the principal priority for Major Programme II (Natural Sciences) by the Member States for the last three biennia, thereby strengthening UNESCO's role and visibility within the United Nations system. Nonetheless, the regular budget allocated to water activities was reduced by approximately 12% from the 33 C/5 to the draft 34 C/5, and by further 4% after the 34th session of the General Conference. This last reduction in January 2008, amounting to USD 300,000 cut from the net programme execution funds of the IHP Secretariat at Headquarters, came unexpectedly. It is to be noted that this cut was linked to the "imbalance" noted by the Review Committee. In total, IHP has USD 1.3 million less the current biennium, strongly impacting its capacity to serve Member States with regards to freshwater, an effect that is compounded by the relative loss of value of this currency in current interest rates.

8. The Implementation Plan includes several other aspects relating to IHP and water-related issues. For instance, with regards to Recommendation 2 (Addressing new scientific paradigms: incorporating "cutting-edge" research), the Implementation Plan foresees that UNESCO will provide evidence-based advice to governments on scientific issues related to freshwater, drawing on its key role in collaborative United Nations system efforts, in particular through the UN-Water coordinating mechanism. With regards to science education as a priority (Recommendation 4) the Implementation Plan mentions that the Natural Sciences Sector will draw on the considerable educational expertise and international reputation of the UNESCO-IHE Institute for Water Education in the implementation of new programmes on science education. With regards to Recommendation 5 (International science programmes: towards better coordination and synergy), the Implementation Plan notes the comments provided by IHP, highlighting that the International Science Programmes (ISPs) have proven to be effective partnerships between scientists and governments, stressing that the ISPs enjoy a high reputation worldwide, have proven to be cost-effective and responsive to Member States' needs, and have played key roles at the level of the United Nations (e.g., IHP with UN-Water and the World Water Assessment Programme). It further notes that the ISPs have developed – through a broad participatory process involving their National Committees, United Nations agencies, and professional scientific NGOs – strategic plans aligned with UNESCO's Medium-Term Strategy (C/4). This

has ensured that they periodically renew and redirect their work to meet the evolving interests and needs of Member States and the scientific community.

9. The position of the IHP Bureau, presented in Annex I, should be recalled when considering the points noted in the previous paragraph. IHP because of its mandate, governance and procedures already satisfied the pertinent recommendations, in particularly through the formulation and execution of its successive phases. Currently the strategic plan for IHP-VII addresses the needs and concerns of Member States and provides clear policy directions for the next 6 years. The implementation of the recommendations about which the IHP Bureau expressed its concern may prove detrimental to the efficiency, functioning and capacity to deliver of IHP.

34TH SESSION OF THE GENERAL CONFERENCE

10. At its 34th session, the General Conference examined the Report of the Review Committee and other related documents, including a brief summary of the comments and budgetary concerns addressed by the IHP Bureau to the Director-General during the consultation process (34 C/13). The General Conference encouraged the Director-General, in carrying out the Implementation Plan, to conduct wide-ranging consultations with the scientific community, including the external members of the former Overall Review Committee. The General Conference has also acknowledged the overview of scientific programmes and initiatives in the United Nations system (34 C/INF.13), and welcomed the Director-General's commitment to further develop the overview with an analysis of its implications for UNESCO. In addition, the General Conference invited the Director-General to take into account the above-mentioned overview as well as the agreed recommendations of the Overall Review Committee when preparing document 35 C/5, and to submit a comprehensive report on this topic to the General Conference at its 35th session.

COMMENTS OF THE IHP BUREAU AT ITS 41ST SESSION

11. The IHP Bureau, at its 41st session, took note of the latest developments with regards to the follow-up to the recommendations of the Overall Review Committee for Major Programmes II (Natural Sciences) and III (Social and Human Sciences). The Bureau is of the view that IHP, by the very nature of its mandate, governance and operational procedures, already satisfied the relevant recommendations, particularly through the formulation and execution of its six-year phases and that the application of additional recommendations would prove detrimental to IHP in terms of its efficiency, functioning and capacity to deliver. These matters have been appropriately raised in the aforementioned letter to the Director- General.

12. In this regard, the Bureau unanimously decided to prepare a statement, emphasizing the critical importance of freshwater, IHP's role in addressing freshwater issues and the relevance of the Review Committee's recommendations for consideration and adoption by the IHP Intergovernmental Council and subsequently for submission to the governing bodies of UNESCO. The statement should note the efficient use of the regular budget by IHP and its success in obtaining extrabudgetary funds as a complement to seed funding from regular sources. The Bureau expressed its deep concern that two months after the approval of the Programme and Budget for 2008-2009 (34 C/5) by the General Conference, the budget of IHP was subjected to a cut without any prior consultation. The Bureau also noted that this budget cut is to be partially restored to IHP via extrabudgetary sources through a contribution from the Japanese Funds-in-Trust as decided by the Director-General.

ANNEX I

**COMMENTS BY THE IHP BUREAU, ON BEHALF OF THE
INTERGOVERNMENTAL COUNCIL OF IHP, REGARDING THE REPORT OF THE
OVERALL REVIEW OF MAJOR PROGRAMMES II AND III**



International Hydrological Programme

The Chairman of the Intergovernmental Council

Mr K. Matsuura
The Director-General of UNESCO
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France

Delft, June 15 2007

Ref. : IHP/BUREAU/001

Dear Mr Director-General,

I am writing on behalf of the Bureau of the International Hydrological Programme (IHP) which has just concluded its 40th session held in Delft, The Netherlands, at the UNESCO-IHE Institute for Water Education, 13-15 June 2007.

Item 7 of our agenda was devoted to the Report of the Overall Review Committee for Major Programmes II and III, and specifically to providing the comments requested by the Executive Board in 176 EX/Decision 7, para. 11 (a). The Bureau has carefully considered all items presented in document IHP/Bur-XL/12 (available online at www.unesco.org/water/ihp/bureau/40th/12.pdf), including the Report of the Review Committee, the comments of the Director-General on the Report, annotations by the Secretary of IHP to 176 EX/7, and an Experts Declaration addressed to the Director-General, Arab Delegations to UNESCO, and Arab National Commissions to UNESCO signed by 22 water experts from 13 countries in the region during the meeting of the Steering Committee of the Arab Water Networks held in Bahrain 22-25 March 2007.

Mr K. Matsuura
The Director-General of UNESCO
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The Bureau wishes to contribute the following comments on the Report of the Overall Review Committee for transmission to the Executive Board.

1. The Bureau welcomes the opportunity to consider the strengths and weaknesses of the IHP in the context of UNESCO's overall mission for science, and considers that it is always a constructive exercise to see how current policies and practices can be improved.
2. The Bureau concurs with many of the conclusions of a general nature contained in the Report and wishes to draw attention to the fact that several of these recommendations are already being addressed within the IHP, with considerable and, in our view, laudable progress having been made. Examples are:
 - Recommendation 2 (new scientific paradigms and cutting edge research): The practice within IHP of preparing – through a complex participatory process involving IHP National Committees, UN agencies, professional scientific NGOs, etc – six-year strategic plans aligned with the UNESCO's strategic planning document (C/4), ensures that the IHP periodically renews and redirects its work according to evolving interests and needs of Member States and the scientific community.
 - Recommendation 3 (interdisciplinary and intersectoral activities): Since the landmark Rio conference in 1992, the IHP has adopted a sustainable development perspective, and has therefore broadened its work to embrace not only other fields of natural science related to the hydrological sciences, but also the social sciences. This evolution is demonstrated by the new themes which have been taken up beginning in 1996 with Phase V of the Programme. In implementing its strategic plans, the IHP has worked increasingly with the other sectors and programmes for the natural and social sciences within UNESCO, as well as with culture and education. One result of such collaborative work is the Main Line of Action in 33 C/5 devoted to ecohydrology implemented jointly with the Man and the Biosphere (MAB) Programme and for which considerable financial resources have been allocated. Another example is the extensive series of UNESCO publications on water and ethics prepared by the Committee on the Ethics of Science and Technology, in collaboration with the Sector for Social and Human Sciences of UNESCO.
 - Recommendation 4 (science education): IHP has been instrumental in developing water education programmes since its inception. Its effort has been reinforced in the current Phase with the entry into the UNESCO water family of the UNESCO-IHE Institute for Water Education, the importance of which for UNESCO's prestige and delivery can not be overstated. In addition, IHP is currently the lead partner of the thematic programme on education for sustainable water management of the UN Decade of Education for Sustainable Development.

3. The Bureau regrets that there are many factual errors in the report of the Committee concerning UNESCO's action in freshwater. The Committee would have been well served by a careful review of reports of IHP Council meetings in order to have benefited from a better grasp of IHP policy, achievements and governance practices. Moreover, some of the conclusions could and should benefit from more precise analysis, and more emphasis laid on the positive achievements of UNESCO in freshwater and the many opportunities open to the Organization for the future, thanks to these accomplishments.
4. The Bureau recalled that over the years it had been regularly informed and consulted in the process of preparing the draft C/4 and C/5 documents of UNESCO. It has been the understanding of the Bureau that a key component of this process is the series of Regional Consultations designed to bring in the perspectives of the various stakeholders in UNESCO's programmes, including the IHP. In the consultations for 34 C/4 and 34 C/5, the Member States overwhelmingly expressed their continued support to freshwater as a principal priority of UNESCO (ref document 175 EX/22). The Bureau regrets that the Review Committee does not appear to have adequately reflected the results of the Regional Consultations in its report, despite the fact that "country and regional priorities and today's global needs" are explicitly cited in paragraph 1 of the Terms of Reference of the Committee. The Bureau has also noted that in the Draft 34 C/5 presented to the 176th session of the Executive Board, the budget of IHP-related items had been reduced in comparison with the current biennium.
5. The Bureau wishes to make the strongest possible statement concerning the importance of water as a global issue of concern to all countries. Accordingly, the Bureau expresses alarm that UNESCO's commitment to freshwater might diminish at the very moment when this issue has – in part thanks to UNESCO's leadership – risen to the top of the international agenda. Water/sanitation is not only a key target within the MDGs but also one of the rare if not unique issues which cuts across all of the MDGs. Note should also be taken of the fact that the hydrological cycle is one of the most sensitive parts of the climate system. Therefore climate change will likely have a dramatic effect on how water will be distributed in space and time, leading to more extremes (e.g. floods and droughts) and potential conflicts. This point can not be stressed strongly enough. The Bureau is thus concerned that a lessening of UNESCO's effort in freshwater at this juncture could be interpreted as a diminishing commitment of the Organization to the drive to achieve the MDGs by 2015.
6. The Bureau is strongly opposed to the creation of an over-arching scientific advisory board (recommendation 9 of the Review Committee). Such a body would be an unnecessary extra layer of bureaucracy which would not bring added value to the IHP. The proposed mandate is unrealistic and would most likely prove counterproductive to the efficient running of a programme like IHP which is of a scientific and technical nature involving broad and diverse constituencies. Attention is drawn to the rejection by the 12th session of the IHP Intergovernmental Council of a scientific committee of water experts on the grounds that the Council already had sufficient access to scientific expertise.

7. Similarly, the Bureau is strongly opposed to any merging of administrative structures of UNESCO's intergovernmental scientific programmes as suggested in the report of the Review Committee. Such an arrangement could only be detrimental to focused and effective action by UNESCO to serve Member States, centered on the MDGs and on delivering services at country level in the context of UN reform.
8. The Bureau agrees with the Director-General's objection to the conclusion of the Review Committee regarding overlap of mandates concerning freshwater within the UN system. UNESCO's mandate in science and education is clearly reflected in the identity of the IHP, which is the only science programme on freshwater within the United Nations system. Moreover, the success enjoyed thus far by UN-Water in coordinating the 24 agencies of the UN system involved with freshwater should not be underestimated, even if there remains a great deal of room for improvement. The UN World Water Assessment Programme, led by UNESCO and deemed the flagship programme of UN-Water, is a demonstration that the UN system not only has the will to work together to produce concrete products useful to Governments, but also is able to translate good intentions into practice.

In conclusion, the Bureau recommends the following action in implementing 176 EX/Decision 7:

1. Ensure by all possible means that UNESCO continues to be perceived as maintaining its strong, demonstrated commitment to freshwater in all its fields of competence, in recognition of the extremely high importance of water issues to Member States and to the MDGs and other international goals, and so as not to lose the position that has been attained by the Organization thanks primarily to the decision of the General Conference to establish principal priorities with associated budgetary reinforcements.
2. Retain the Report of the Overall Review Committee as a reference document, and use the recommendations of the Member States during the Regional Consultations as the primary reference point in finalizing the 34 C/4 and 34 C/5.
3. If the Report were to be adopted:
 - 1 Highlight in the Report of the Review Committee the many positive achievements of UNESCO in the field of freshwater, in order to capitalize on what has been achieved and to ensure that UNESCO continues to play an important and, where appropriate, leadership role in the future.
 - 2 Correct in the Report of the Review Committee the factual errors concerning IHP and UNESCO's overall action in freshwater which includes, *inter alia*, the work of the UNESCO-IHE Institute for Water Education.
4. Reinstate in draft 34 C/5 the same budget allocation to the IHP contained in 33 C/5, in real terms.

5. Include the members of the IHP Intergovernmental Council and category II water-related centers in the wide-ranging consultations on the possible implementation of the Review Committee's recommendations, called for in paragraph 11 (b) of 176 EX/Decision 7.

The Bureau stands ready to assist the Committee, the Secretariat, or the Executive Board in any way deemed appropriate and useful, not the least being to avail UNESCO's decision-making bodies of greater expertise in the water sciences as well as greater knowledge of the functioning and delivery of the International Hydrological Programme within the Member States.

Yours sincerely,

[original signed]

Alhaji Muhtari S. Shagari, CFR, LLB (BL)
Chairperson of IHP Bureau

- cc. IHP Bureau members: Mr Keizrul Abdullah, Mr Muhammad Al-Rashed, Mr Ognjen Bonacci, Mr Benito Braga, Mr Alan Jenkins

ANNEX II

**PLAN FOR IMPLEMENTING THE RECOMMENDATIONS
EMERGING FROM THE OVERALL REVIEW OF MAJOR PROGRAMMES II AND III**

[Annex of document 34 C/13 on OVERALL REVIEW OF MAJOR PROGRAMMES II AND III]

Appendix

Table: Modalities and time frame for the implementation of the recommendations emerging from the Overall review of Major Programmes II and III

| Recommendation | Director-General's comments | Implications and modalities of action | 34 C/5 time frame (2008-2009) |
|--|--|--|---|
| <p>1. Policy advice towards capacity-building needs strengthening</p> <ul style="list-style-type: none"> UNESCO should strengthen its science policy work by using its access to governments to encourage and help plan the direction of resources to capacity-building in the sciences, <ul style="list-style-type: none"> - through the establishment of science and technology infrastructure and research, development and innovation capacity, - demonstrating to governments that investment in science and technology is vital to human, social and economic progress. In addition, bringing scientists the means and opportunities to work in their home countries on locally important research and development and to build meaningful international partnerships is a central aspect of reducing brain drain. | <p>The Director-General <u>fully supports</u> the view that UNESCO should strengthen its science policy work using its access to governments to encourage and help plan the direction of resources to capacity-building in the sciences.</p> <p>He notes that this issue is specifically addressed in draft document 34 C/4 in:</p> <p>overarching objective 2 (“Mobilizing science knowledge and policy for sustainable development”) and</p> <p>strategic programme objective 4 (“Fostering policies and capacity-building in science, technology and innovation”)</p> | <p>Organization of Ministerial round table events (with Ministers of Science and Technology, Higher Education and Social Development) and regional and subregional forums.</p> <p>Policy advice and preparation of needs assessment to Member States concerning the reform and governance of science, technology and innovation (STI), especially in Africa. Generic STI policy packages to be developed for countries with similar socio-developmental challenges, such as SIDS. Policies to couple science with local knowledge, addressing marginalized communities such as indigenous communities.</p> <p>Science policy activities to be reinforced as joint activities involving both SC and SHS. Policy dimensions to be incorporated and/or expanded in all natural science and social and human sciences programmes.</p> <p>Policy-related activities to be supported by global monitoring of S&T capacities and trends in close cooperation with UIS.</p> <p>Increased use of South-South, North-South and triangular cooperation for capacity-building.</p> <p>Better and more strategic use to be made of UNESCO Chairs.</p> <p>Strategic partnerships and networking enhanced.</p> <p>Science components to be integrated in United Nations country programming exercises during 2008-2009.</p> | <p>MPII MLA 4: Supporting STI policies for sustainable development and poverty eradication and developing countries in basic sciences, energy and engineering.</p> <ul style="list-style-type: none"> Evidence-based national STI policies, integrating principles of sustainable development and contribution of local knowledge formulated and adopted. Policies and practices for sustainable development of SIDS shared with and across all SIDS regions. <p>MPII MLA 2: Oceans and coastal zones: improving governance and fostering international cooperation through ocean sciences and services.</p> <ul style="list-style-type: none"> Management of ocean resources and coastal areas improved via development of policy-relevant information on impacts of climate change and variability on marine ecosystems and coastal zones. <p>UNESCO Action Plan developed and implemented in response to African Union/NEPAD action platform for S&T.</p> <p>Promotion of International Year of Planet Earth (2008)</p> <p>MPIII MLA 1: Promoting ethics of S&T with emphasis on bioethics.</p> <ul style="list-style-type: none"> Policy-makers in Member States, higher education institutes, national research systems and wider public sensitized. <p>MPIII MLA 2: Enhancing research policy linkages in field of social development.</p> <ul style="list-style-type: none"> Policy-oriented research networks in social sciences strengthened. |

| Recommendation | Director-General's comments | Implications and modalities of action | 34 C/5 time frame (2008-2009) |
|---|--|---|---|
| <p>2. Programmes must address new scientific paradigms and incorporate “cutting-edge” research</p> <ul style="list-style-type: none"> UNESCO should be “forward-looking” and be aware of “emerging areas” of science (such as nanotechnology, science intelligence, knowledge economy, etc.). UNESCO science programmes should convene the required meetings and debates in order to be better prepared to identify emerging ideas. Programmes should incorporate “cutting-edge” scientific research and knowledge through partnerships with scientific organizations such as ICSU and TWAS. UNESCO should further emphasize new scientific paradigms, such as socio-ecological resilience, vulnerability and adaptive management of the environment. UNESCO should at the same time ensure that diverse knowledge systems are taken into consideration in designing and managing its programmes. UNESCO should examine its inscribed sites (507 biosphere reserves in 102 countries, 162 natural World Heritage sites, etc.) to determine the appropriateness of making them more available for coordinated global monitoring of climate change, biodiversity loss and sustainable development. | <p>The Director-General <u>agrees</u> with Recommendation 2, that UNESCO’s science programmes must address new scientific paradigms and incorporate “cutting-edge” research. This language is contained in overarching objective 2.</p> <p>The use of UNESCO sites is addressed in: strategic programme objective 3 (“Leveraging scientific knowledge for the benefit of the environment and the management of natural resources”)</p> | <p>Monitoring and observation of emerging areas through category 1 and 2 centres and institutes, UNESCO Chairs and university twinning arrangements; also through the evolving programmes of the ISPs.</p> <p>Organization of meetings and debates for the identification of emerging ideas.</p> <p>Dissemination of cutting-edge research in different policy-oriented fields, in particular poverty eradication, migrations and urban issues, as well as on the social impact of climate change, particularly in developing countries and LDCs.</p> <p>Assessment of new areas of research and their strategic value to Member States, through reinforced relations with ICSU, ISSC, ICGEB, TWAS and CERN.</p> <p>Advice provided to governments on cutting-edge research in environment (fresh water, oceans, biodiversity and desertification).</p> <p>Local and indigenous knowledge to be fully taken account of in programmes in areas such as coastal management, biodiversity science and natural hazard risk reduction.</p> <p>MAB biosphere reserves, natural World Heritage sites and geoparks to be encouraged and supported to act as living laboratories and monitoring platforms for global climate change, loss of biodiversity and sustainable development.</p> | <p>All MPII and MPIII MLAs to address this recommendation.</p> <p>SHS will develop its watch function regarding emerging areas of social and human science research and contribute to strengthening paradigms relating to socio-ecological resilience and vulnerabilities.</p> <p>Plans developed for establishment of an observatory for science serving the United Nations system.</p> <p>IBSP to implement future strategy supporting cutting-edge basic research efforts.</p> <p>Contributions to cutting-edge scientific water-related research and the emphasis on new scientific paradigms made via IHP, UNESCO-IHE Institute for Water Education, WWAP and the network of centres.</p> <p>IOC to address cutting-edge research related to oceans and climate, science and modelling for the prevention and reduction of the impacts of natural hazards, including tsunamis; and marine assessments.</p> |

| Recommendation | Director-General's comments | Implications and modalities of action | 34 C/5 time frame (2008-2009) |
|---|--|--|---|
| <p>3. Interdisciplinary and intersectoral activities require major strengthening</p> <ul style="list-style-type: none"> UNESCO should assign an important priority to promoting intersectorality and interdisciplinarity in the next C/4 and C/5 documents. UNESCO should develop overarching objectives to integrate the sciences (natural, social and human), as well as to integrate the sciences with education, culture, and communication and information. UNESCO's programmes and projects should be developed from a problem-based perspective, applying interdisciplinarity and cross-sectoral approaches as needed. All the science programmes should have components of both natural sciences and social and human sciences. They should also include elements of education and training, culture and communication and information, building on UNESCO's comparative advantage within the United Nations system. The ethical dimension and values should be incorporated in all programmes. | <p>The Director-General welcomes this view, noting that draft document 34 C/4 emphasizes a broadened intersectoral and interdisciplinary engagement as an integral part of the programming process.</p> <p>Overarching objective 2 states that "All programmes will integrate interdisciplinary approaches drawing on contributions from all of UNESCO's fields of competence".</p> | <p>Establishment of Intersectoral Platforms.</p> <p>All science programmes to include greater involvement of natural, social and human scientists, as well as experts in education, communication and culture in the design and implementation of activities.</p> <p>Ethical dimension to be incorporated in all science programmes.</p> <p>Task Force on MP II and III to advise the Director-General on measures to increase intersectoral activities.</p> | <p>All MP II and MP III MLAs to address this recommendation.</p> <p>Intersectoral Platforms launched: Science education; HIV & AIDS; Education for sustainable development; Contribution to implementation of Mauritius Programme of Action for the sustainable development of SIDS; Fostering ICT-enhanced learning; Strengthening national research systems; Languages and multiculturalism; Enhancing linkages between cultural and biological diversity as key basis to sustainable development; Contributing to dialogue among civilizations and cultures and a culture of peace; Support to countries in post-conflict and disaster situations; Development of cross-sectoral programme for capacity-building; and multilingualism; Priority Africa – coordinating and monitoring the plan of action to benefit Africa.</p> <p>SC and SHS to play major roles in Intersectoral Task Force on Global Climate Change.</p> <p>MP II MLA 1:</p> <ul style="list-style-type: none"> Sustainable development promoted via establishment of interdisciplinary learning laboratories, using sites of the World Network of Biosphere Reserves for research on biodiversity and sustainability. <p>New intersectoral earth science partnerships to result from the International Year of Planet Earth. IGCP to implement new objectives to address better the need for interdisciplinary work in earth system science.</p> |

| Recommendation | Director-General's comments | Implications and modalities of action | 34 C/5 time frame (2008-2009) |
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| <p>4. Science education should be a high priority.</p> <p>At the 2005 General Conference's High-Level Ministerial Round Table on the Basic Sciences, Ministers called for greater emphasis on science education as an integral part of capacity-building and recognized the "symbiotic relationship between scientific research and higher education".</p> <ul style="list-style-type: none"> • UNESCO should increase efforts to assist countries to develop national science systems, to strengthen university education in the sciences, particularly through the integration of research and education, and to improve the quality of science teaching, including through e-learning. • In all of these endeavours, UNESCO category 1 and 2 centres, Chairs and associated university networks are important assets. Closer coordination with the United Nations University (UNU) is also recommended. • UNESCO should play a major role in strengthening science education in the basic and applied sciences, and the social and human sciences worldwide in order to attract young people into science and scientific careers. • All types of media (e-learning, including through lectures by leading scientists broadcast through the electronic media, museums, exhibitions, etc.) should be utilized. | <p>The Director-General <u>finds particularly important</u> Recommendation 4, that science education should be a high priority.</p> <p>Science education is specifically addressed in strategic programme objective 2 ("Developing policies, capacities and tools for quality education for all and lifelong education") and strategic programme objective 4.</p> <p>UNESCO-IHE is the premier postgraduate institution in the world in water education and is very active in expanding water education activities in developing countries.</p> | <p>Increased science education efforts, building on the expertise and experience in the field offices, UNESCO institutes, category 1 and 2 centres, UNESCO Chairs and in cooperation with ED.</p> <p>SC to draw on educational expertise of ICTP and UNESCO-IHE to implement new science programmes.</p> <p>Addressing the need to integrate research and education, SC to increase efforts to improve capacity and knowledge base of policy-makers, teacher trainers and teachers, including teacher training at university level. Improved scientific curricula and scientific content at all levels of education (with ED, CLT and CI).</p> <p>SHS to emphasize (i) monitoring of social and human sciences at secondary and tertiary levels; (ii) adapting cutting-edge research results on key issues relating to social transformations and social development for teaching purposes, in cooperation with ISSC, ICPHS, MOST networks; and (iii) elaborating and disseminating teaching materials on environmental ethics, bioethics and ethics of S&T in higher education.</p> <p><i>ICTs for science education promoted in collaboration with CI sector.</i></p> <p>Priority given to cooperation with UNESCO Chairs, category 2 institutes, UNU, UNRISD and regional research networks with a view to enhancing development of curricula and research tools.</p> | <p>Intersectoral Platforms on Science Education and Education for Sustainable Development</p> <p>MPII MLA 1: Fostering policies, technical capacity-building, networking, <u>education</u>, and international cooperation in the fields of water, ecological and earth sciences for enhancing societal responses.</p> <ul style="list-style-type: none"> • Fresh water education programme developed within the framework of the United Nations Decade of Education for Sustainable Development. <p>MPII MLA 4:</p> <ul style="list-style-type: none"> • National and regional capacities for research, training and <u>education</u> in the basic sciences strengthened to foster applications for societal needs and to encourage careers in science, taking into account gender equity and equality. • Human and institutional capacities in engineering, technology and innovation strengthened, with focus on knowledge management in engineering. <p><i>IBSP to implement strategy promoting science education, use of ICTs in science education and sharing of scientific information.</i></p> <p>UNESCO's revised science teaching handbook to be widely disseminated via National Commissions.</p> |

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| <ul style="list-style-type: none"> The science programmes should focus on young researchers, helping to prepare future leaders in science and technology. | | <p>Increased efforts to attract young people and especially women into science and scientific careers (Youth Forum on Science Ethics, WAYS, fellowships and prizes and awards for young scientists).</p> | |
| <p>5. The ISPs need better coordination and synergy</p> <ul style="list-style-type: none"> The ISPs should be reoriented to exhibit a problem-based perspective and to reflect their contributions to peace, poverty reduction, sustainable development and the dialogue among civilizations. Better coordination and cooperation is needed among the ISPs, as well as with other United Nations programmes. The ISPs should be evaluated periodically to ensure that they incorporate state-of-the-art scientific research in their activities, prevent intellectual overlap with other activities, promote coordination and cross-cutting activities with other relevant United Nations entities and national and international organizations, and leverage resources through appropriate partnerships. Given the open-ended nature of the ISPs, questions of sunset clauses and/or evolution to self-sustaining extrabudgetary funding for the programmes and also for specific projects within these programmes should be considered. | <p>The Director-General <u>observes that this issue requires the special endorsement of the General Conference.</u></p> <p>Improved cooperation with other United Nations programmes is already included in strategic programme objective 3.</p> <p>However, the Director-General <u>does not concur</u> with the Committee's findings that there is overlap and insufficient coordination on fresh water issues within the United Nations system, since the International Hydrological Programme is the only science programme within the United Nations system dealing with fresh water issues and closely interacts with the United Nations-wide coordinating body UN-Water.</p> | <p>The ISPs to enhance ongoing efforts to contribute to peace, poverty eradication, sustainable development and the dialogue among civilizations.</p> <p>ISPs to increase cooperation and coordination through regular meetings of chairpersons of respective ISP governing bodies.</p> <p>ISPs to continue working closely with the United Nations and other organizations to ensure complementarity of action and minimal overlap.</p> <p>Advantages of closer cooperation between UNESCO National Commissions and National ISP Committees to be demonstrated to Member States.</p> <p>Periodical evaluations of all ISPs to be widely disseminated.</p> | <p>Any change to the governance of the ISPs is subject to approval by the General Conference. However, streamlining the management of the ISPs through, for instance, shared administrative support, to be provided by the Secretariat of UNESCO, will be examined.</p> |

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| <ul style="list-style-type: none"> The administrative structures of the ISPs should be reviewed to consider the appropriateness of their merging to achieve better coordination and budgetary efficiency. Better cooperation is needed between the ISP National Committees and between those Committees and the UNESCO National Commissions. | | | |
| <p>6. Outreach and partnerships need improvement</p> <ul style="list-style-type: none"> UNESCO should make better use of its existing partnerships within the UNESCO family (field offices, National Commissions, category 1 and 2 centres and institutes, National Committees of the ISPs, Chairs, UNITWIN networks and Clubs) and the United Nations family. Scientists should be represented in all National Commissions for UNESCO, thereby strengthening their ability to be effective partners. Outreach and communication strategies should be integrated in all the science programmes, reporting to the public on their results and impacts. UNESCO should strengthen key partnerships with leading organizations (e.g. relevant United Nations entities, research and development institutions, funding | <p>The Director-General <u>welcomes</u> Recommendation 6 on the need for improved outreach and partnerships, noting that draft document 34 C/4 already highlights this issue in the sections “Constituencies, partners and partnerships” and “Visibility and public information”.</p> <p>He also agrees with the specific recommendation (to the attention of Member States) that scientists should be represented in all National Commissions of UNESCO, thereby strengthening their ability to be effective partners.</p> <p>The Director-General considers that the specific recommendation to establish a UNESCO science prize for peace is <u>not necessary</u> for the time being, in view of the numerous existing UNESCO science prizes, which need to be further streamlined. He notes that the important UNESCO-L'Oréal Awards for Women in Science give high visibility to the Organization. He further notes that the Executive Board at its 171st session approved a new strategy and criteria for</p> | <p>Improvement of UNESCO action through enhanced partnerships with the UNESCO family, including improved communication links with the National Commissions.</p> <p>New partnerships to be established within the United Nations family and other international and scientific organizations.</p> <p>Member States to be encouraged to include experts in the natural and social and human sciences in their National Commissions.</p> <p>Cooperation increased with the Bureau of Public Information (BPI) to develop tools for outreach.</p> | <p>A joint SC-SHS communications and knowledge management unit to be set up to reinforce the dissemination of the results of the work of UNESCO.</p> <p>Greater use of web-based materials, more consistent use, and regular updating, of the UNESCO portal by all programmes and field units, the timely announcement of events and initiatives, and a consistent translation of all materials into non-technical language for the benefit of non-specialists – if possible in all of UNESCO's working languages.</p> <p>IHP will implement the strategy developed in 2007 to foster coordination and collaboration among the category 1 and 2 water-related institutes and centres.</p> <p>Through the International Year of Planet Earth, cooperation to be strengthened with the National Commissions and UNESCO Associated Schools Programme in the organization of outreach activities on the geosciences.</p> |

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| <p>agencies, research councils, space agencies, NGOs, etc.) in order to implement joint programmes.</p> <ul style="list-style-type: none"> UNESCO should consider establishing a “UNESCO science prize for peace”. | <p>the establishment of UNESCO prizes, which stresses in particular the need for extrabudgetary funding for all UNESCO prizes.</p> | | <p>Campaign to celebrate each year the World Day of Science for Peace and Development (10 November).</p> |
| <p>7. Rigorous and transparent selection, assessment and evaluation of programmes and projects are required</p> <p>Programme/Project selection</p> <ul style="list-style-type: none"> Screening procedures to ensure relevance of programmes to 34 C/4 and demonstrating UNESCO's unique contribution. UNESCO to initiate programmes in key areas and exit as soon as other organizations take the lead. External and independent review for selecting programmes and category 1 and 2 institutes and centres. <p>Assessment</p> <ul style="list-style-type: none"> All programmes to be assessed on a continuous and regular basis to determine existing areas that should be continued and developed further; existing areas, which have become either less relevant or overlapping, and which should therefore be phased out or passed on to other bodies; and new forms of knowledge and innovative forms of action, in recognition of new trends and emerging priorities. | <p>The Director-General <u>agrees</u> with Recommendation 7 “Rigorous and transparent selection, assessment and evaluation of programmes and projects are required” and points out that this recommendation is largely in line with draft document 34 C/4 in its section dealing with “Managing for impact”.</p> <p>With regard to the Committee's observation on “the imbalance in funding of science programmes in favour of water-related activities”, the Director-General wishes to draw attention to the fact that the additional financial resources accorded to water-related activities are a direct result of UNESCO's decision to establish principal priorities for each major programme, starting with document 31 C/5, in view of UNESCO's limited resources and the need for improving the focus of UNESCO's actions. “Water and associated ecosystems” has been approved as the principal priority for Major Programme II (Natural sciences) for the last three biennia, thereby strengthening UNESCO's role and visibility within the United Nations system.</p> | <p>Continued consultations with Member States to be carried out to establish national and regional needs and clear scientific imperatives in the design and establishment of programmes presented to the General Conference and, in the case of the ISPs, their respective governing organs.</p> <p>The choice and designation of category 1 and 2 institutes and centres to be founded upon wider independent scientific expertise and peer review as part of the feasibility study to be conducted for each applying institute.</p> <p>Science Sectors to phase out financial support for activities, once latter have proved themselves self-sustaining or able to attract funding from elsewhere. UNESCO management tools to be improved and made available for continual assessment of activities and their results.</p> <p>Evaluation plans to be adequately financed and built in to all science programmes.</p> | <p>A professional peer review process, involving key partners, will be put in place for all programmes to ensure greater scientific rigour.</p> <p>Management tools to be improved and made available for continual assessment of activities and their results.</p> <p>The regular evaluations of units and programmes carried out by the Internal Oversight Service will be reinforced with respect to science.</p> <p>IGCP will implement results of extensive review, to include peer reviewed research projects with annual evaluation and a sunset clause after five years.</p> <p>The MAB Programme and network of biosphere reserves will undergo significant review in the preparation of the Madrid Action Plan to be adopted at the third World Biosphere Reserve Conference and the 20th session of the MAB-ICC, both to be held in Madrid, Spain, from 4 to 8 February 2008.</p> <p>The implementation of the Madrid Action Plan will be evaluated during 2012-2013.</p> |

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| <p>Monitoring and evaluation</p> <ul style="list-style-type: none"> Monitoring and evaluation should be built into all its programmes and conducted at pre-determined intervals by diverse and independent scientific experts using meaningful performance indicators. Evaluations should use a well-defined set of criteria. | <p>For the preparation of the work plan for the 2008-2009 biennium, screening procedures are being already set up with a view to ensuring relevance to 34 C/4 objectives, distinctive contribution within the United Nations system and integration of new forms of knowledge and emerging priorities.</p> | | <p>All MAB and biosphere reserve activities will have a framework for regular evaluation within each of UNESCO's strategic planning cycles.</p> <p>IOC to implement a new approach for better monitoring and evaluation of all its programmes and improved synergy with UNESCO programmes and actions.</p> |
| <p>8. UNESCO's leadership must be enhanced through <u>new global initiatives</u></p> <ul style="list-style-type: none"> Organize and convene on a regular basis a Forum of Ministers of Science, Technology and Higher Education, to promote dialogue and to better understand the science policy issues UNESCO should address, particularly in developing countries. Special attention must be paid to both the format for these meetings and follow-up by UNESCO to ensure maximum value for the time invested by the participants. Provide a forum for scientists to inform UNESCO on new and emerging areas of the sciences and to bring together scientists with opposing views on important contemporary scientific issues to debate their positions. Perform a "global watch" function in order to be capable of monitoring critical emerging ethical and societal issues. Monitor science and technology indicators at the global level, benefiting from the capabilities of the UNESCO Institute of Statistics (UIS). | <p>The Director-General <u>fully supports</u> Recommendation 8 that UNESCO's leadership in the sciences must be enhanced through four new global initiatives.</p> <p>Regarding the regular Forum of Ministers of Science, Technology and Higher Education, the Director-General notes that such a forum was held during the 33rd session of the General Conference and another is planned for the 34th session of the General Conference.</p> <p>The detailed recommendation on UNESCO performing a global watch function in order to be capable of monitoring critical emerging ethical and societal issues is fully addressed in strategic programme objective 8 ("Fostering research on critical emerging ethical and social issues").</p> | <p>Dialogue with governments at the highest level to be increased by periodical round tables of Ministers of Science and Technology and Higher Education.</p> <p>Organization-wide actions to be formulated on future-oriented studies concerning emerging issues of relevance to UNESCO's fields of competence.</p> <p>Convening of dialogues and debates on new fields of research and emerging ethical and societal issues. (See also Recommendation 2).</p> <p>Consultations to be held on feasibility of convening in 2009 major follow-up to UNESCO-ICSU World Conference on Science.</p> | <p>The Ministerial Round Table <i>Science and Technology for Sustainable Development and the Role of UNESCO</i> is planned during the 34th session of the General Conference.</p> <p>Follow-up to high level meetings (expressed through declarations, plans of action) to be carried out.</p> <p>IOC to continue as one of the two lead agencies for the Global Reporting and Assessment of the State of the Marine Environment, and its Assessment of Assessments (see also Recommendation 2).</p> <p>Preparation of monitoring of S&T indicators at global level, in cooperation with UIS.</p> |

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| <p>9. A science advisory committee is required</p> <p>The establishment of an <u>overarching scientific advisory committee</u>, which would meet at regular intervals and report to the Director-General.</p> | <p>The Director-General has carefully <u>examined</u> Recommendation 9 on the establishment of a scientific advisory council and <u>considers that this issue requires a more comprehensive analysis</u>, taking into account the prerogatives of UNESCO's governing bodies, the mandates of the Scientific Boards of the ISP Councils and Committees and the responsibilities of the Internal Oversight Service (IOS) for evaluation of UNESCO's programmes.</p> <p>However, in order to strengthen intersectorality and interdisciplinary activities, the Director-General <u>will establish</u> a task force within the Secretariat under his authority.</p> | <p>Task Force on Major Programmes II and III established by DG/Note/07/23 of 26 June 2007 with mandate to (i) prepare plan for implementing the recommendations emerging from the overall review; (ii) guide and review 34 C/5 work plans of Major Programmes II and III to ensure that they are in line with the Implementation Plan; (iii) advise the Director-General on any administrative measures and/or adjustments in order to ensure effective and efficient action of the two Science Sectors and highest level of impact of their programmes, and in particular, to increase intersectoral activities; (iv) analyse the scientific functions and activities of the principal United Nations organizations and agencies, as well as other relevant organizations, addressing natural and social and human sciences; and (v) review UNESCO's country-level contributions in sciences to United Nations country teams and to provide guidance for further development of such efforts.</p> | <p>Six months after the approval of work plans of document 34 C/5, the Director-General will assess the Task Force's activities and take a decision on its future role and modalities.</p> |