



International Hydrological Programme

40th session of the IHP Bureau
(UNESCO-IHE, Delft, 13 – 15 June 2007)

FOLLOW-UP TO 176 EX/DECISION 7 OF THE UNESCO EXECUTIVE BOARD CONCERNING THE REPORT OF THE OVERALL REVIEW COMMITTEE FOR MAJOR PROGRAMMES II AND III

Item 7 of the provisional agenda

SUMMARY

Pursuant to 33C/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.

A report by the Director-General, containing the report prepared by the Review Committee and his comments to it, was presented to the Executive Board at its 176th session in April 2007. In 176 EX/Decision 7, the Board requested the Director-General to forward the report and the recommendations of the Committee to the governing bodies of the intergovernmental science programmes for information and to invite these bodies to transmit their comments thereon to the Executive Board.

This document transmits the review report to the Bureau, as well as (a) the comments by the Director-General provided to the Board and (b) annotations by the Secretary of IHP designed to facilitate the work of the Bureau.

Action required: see paragraph 8.

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.¹ The Director-General was asked to set up a Review Committee consisting of 15 external experts, with the participation of appropriate intergovernmental and international non-governmental organizations, and senior Secretariat officials, working in close partnership with all involved sectors and offices of the Secretariat. The Committee is chaired by the Deputy Director-General of UNESCO.
2. The Director-General was also requested 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.
3. 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 to the 176th Session of the Executive Board of UNESCO in April 2007.² In 176 EX/Decision 7, para 11a, 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. The full text of this decision is provided in Annex II.
4. To facilitate the consideration by the Bureau of this review report, the Secretary of IHP has prepared annotations to the report (Annex III)
5. While the review report was being prepared, the UNESCO secretariat already took steps to reflect some of the recommendations anticipated from the overall review in the draft Programme and Budget for 2008-2009 (34 C/5) and the draft Medium-Term Strategy for 2008-2013 (34 C/4). In the case of the IHP, this included a reduction in the draft regular programme budget for water activities in 2008-2009. Other recommendations of the Committee had already been addressed by the IHP Intergovernmental Council, including the drawing up through a broad participatory process of a strategic plan for Phase VII of IHP (2008-2013). In IHP-VII new directions have been charted and certain parts of IHP-VI discontinued (e.g. studies related to endorheic basins).
6. During the discussion of the review report at the 176th session of the Executive Board, some Member States expressed their concern about the potential negative impact of the Committee's recommendations if fully implemented. The report was found to be overly negative by several Member States, particularly with respect to water. Some felt that the recognition in the report of "a number of global lead roles and tasks" could have served as a basis for UNESCO to capitalize on its strengths. Similarly, in reaction to the report, water experts in the Arab region issued a declaration in March 2007 (Annex IV), emphasizing that the importance and successful actions of IHP were omitted in the Review Report.
7. The present document contains the following annexes:

Annex I 176 EX/7: Report by the Director-General on the Conclusions and Recommendations of the Expert Team on the Overall Review of Major Programmes II and III, including the Director-General's Comments on the Report
Annex II 176 EX/Decision 7

¹ 33C/Resolution 2

² 176 EX/7, reproduced in Annex II.

Annex III	Annotations by the Secretary of IHP to the Report by the Director-General on the conclusions and recommendations of the Overall Review Committee for Major Programmes II and III (176 EX/7)
Annex IV	Declaration of water experts from the Arab countries
Annex V	List of Abbreviations

Action required by the Bureau:

8. On behalf of the Intergovernmental Council of IHP, the Bureau may wish to formulate comments on the report of the review panel, as called for in 176 EX/Decision 7.

ANNEX I

**REPORT BY THE DIRECTOR-GENERAL ON THE CONCLUSIONS AND RECOMMENDATIONS
OF THE EXPERT TEAM ON THE OVERALL REVIEW OF MAJOR PROGRAMMES II AND III,
INCLUDING THE DIRECTOR-GENERAL'S COMMENTS ON THE REPORT**

[Original 176 EX/7 document]



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REPORT BY THE DIRECTOR-GENERAL ON THE CONCLUSIONS AND RECOMMENDATIONS OF THE EXPERT TEAM ON THE OVERALL REVIEW OF MAJOR PROGRAMMES II AND III

SUMMARY

The present document contains the report and recommendations on the review of Major Programmes II (Natural sciences) and III (Social and human sciences) requested by the General Conference, through resolution 2, at its 33rd session.

In line with the resolution, the review was carried out by a team of scientific experts from Member States of all regions, constituted by the Director-General following consultations with the different electoral groups of the Organization, as well as of members of the Secretariat.

Comments by the Director-General on the report are contained in paragraphs 62-73.

Decision proposed: paragraph 74.

A STRATEGIC FRAMEWORK FOR THE FUTURE OF THE SCIENCES IN UNESCO

REPORT TO THE DIRECTOR-GENERAL OF THE OVERALL REVIEW COMMITTEE FOR MAJOR PROGRAMMES II (NATURAL SCIENCES) AND III (SOCIAL AND HUMAN SCIENCES)

I. INTRODUCTION

1. In October 2005, the General Conference at its 33rd session adopted a resolution requesting the Director-General to undertake a review of UNESCO's science programmes in light of the Organization's mandate, country and regional priorities and today's global needs, which would form an integral part of and contribute to programme planning.

2. The Review Committee was appointed in February 2006. In its first "information-gathering" phase the Committee concluded a set of findings, which formed the basis of its vision and strategy for the future of the sciences at UNESCO, developed during its second "forward-looking" phase. The results of the Committee's work to date are contained in this report.

II. BACKGROUND

General Conference resolution

3. This review was initiated by a resolution,¹ adopted by the General Conference at its 33rd session in October 2005, submitted by Denmark, Finland, France, Iceland, Norway, Slovenia, Sweden and the United Kingdom of Great Britain and Northern Ireland. The resolution requested the Director-General to undertake an overall review of Major Programmes II (Natural sciences) and III (Social and human sciences) in the light of the Organization's mandate, country and regional priorities, and today's global needs. In order to undertake the review, the resolution requested the Director-General to set up a team of expert scientific representatives of Member States, inclusive of all regions, working in close partnership with the Secretariat. The resolution further requested the Director-General to submit a report on the conclusions and recommendations of the expert team with a view to integrating the agreed conclusions and recommendations into the Medium-Term Strategy for 2008-2013 (34 C/4) and the Programme and Budget for 2008-2009 (34 C/5).

Composition of the Review Committee

4. In February 2006, following consultations with the electoral groups, the Director-General selected members of the Review Committee, to be chaired by the Deputy Director-General.² Fifteen external experts serving in their personal capacities were appointed, together with the Assistant Directors-General for Natural Sciences (SC), Social and Human Sciences (SHS), the Intergovernmental Oceanographic Commission (IOC) and the Director of the Bureau of Strategic Planning (BSP). The Director of the Internal Oversight Service (IOS) was given an observer status. One of the external members was unable to participate for personal reasons.³

¹ 33 C/Resolution 2.

² As documented in the Director-General's Blue Note: DG/Note/06/14 dated 28 February 2006.

³ The complete list of Committee members is contained in Annex II.

Terms of Reference of the Review Committee

5. Bearing in mind the General Conference resolution and the Director-General's Blue Note, the Review Committee in its first meeting adopted its Terms of Reference,⁴ which gives the Committee's mandate as:

To contribute to the elaboration of a forward-looking strategic framework for the sciences programmes of UNESCO, in the light of three interrelated needs:

- the need for UNESCO to take a forward-looking perspective on prioritization and promote a progressive agenda giving proper emphasis to emerging trends and new priorities;
- the need to reinforce the essential role of the sciences for UNESCO in the fight against poverty, with contributions and benefits to institutional and human capacity-building, education and sustainable development;
- the need to contribute to the production of new forms of knowledge and the implementation of innovative forms of action for resolving problems, given the new complexities of the strategic direction of science at the global level.

Working methods

6. Five formal meetings were held at UNESCO Headquarters between March 2006 and January 2007. During the intersessional periods, the Committee maintained an active communication exchange through electronic mail. All relevant material related to the Committee's work was posted on a dedicated website set up by UNESCO.

7. During its first "information-gathering" phase (March-September 2006) the Committee received extensive briefings from UNESCO staff and held a series of public hearings with representatives of the six UNESCO intergovernmental/international scientific programmes (ISPs) within the two Science Sectors: the Intergovernmental Oceanographic Commission (IOC), the International Basic Sciences Programme (IBSP), the International Hydrological Programme (IHP), the International Geosciences Programme (IGCP), the Man and the Biosphere Programme (MAB), and the Management of Social Transformations Programme (MOST). Presentations were also made on the International Bioethics Committee (IBC) and the Abdus Salam International Centre for Theoretical Physics (ICTP). In addition, scientific experts from the following international and national organizations provided their views on UNESCO's science programmes to the Committee: the International Council for Science (ICSU), the International Social Sciences Research Council (ISSC), the World Academy of Young Scientists (WAYS), the National Research Foundation of South Africa, the Swedish International Development Agency (SIDA), the Social Sciences and Humanities Research Council of Canada (SSHRC) and the Israel Institute of Technology (Technion).

8. During May-July 2006, some Committee members attended the Regional Consultations of National Commissions on draft documents 34 C/4 and 34 C/5 as observers. The Director-General provided an information document on the progress of the Committee and its preliminary findings based on its first phase of work to the 175th session of the Executive Board in September 2006.⁵

9. During its second "forward-looking" phase (October 2006-March 2007) the Committee deliberated its findings and recommendations, to be considered in the process of the preparation of documents 34 C/4 and 34 C/5 and completed its final report to the Director-General.

⁴ The complete text of the Terms of Reference is contained in Annex I.

⁵ Document 175 EX/INF.12

10. In response to the Director-General's request for additional financial contributions to facilitate the work of the Committee and its Secretariat, supplementary support was provided by the Governments of Finland, the United Kingdom and the United States.

III. FINDINGS OF THE COMMITTEE

11. During its deliberations, the Committee posed the question – how can UNESCO's science programmes make a significant difference in the twenty-first century? Recognizing the strengths and weaknesses of UNESCO's present strategy, its programmes, and management and administration, the Committee identified the following key findings.

The changing world context and resulting challenges for UNESCO

12. Although the global context has greatly evolved over the past six decades, UNESCO's mandate in science and in all its sectors is at least as relevant today as since its founding. Today, the world faces new challenges as a result of unequal economic development, environmental degradation, demographic evolution, political transformations and globalization. Major threats to natural and human security such as global climate change, emergence and spread of infectious diseases and loss of biological diversity are testing our intellectual capabilities, while humanitarian imperatives and development needs remain as critical as ever. Sustainable solutions, whether at the global, regional or country level, require more advances in scientific knowledge, discoveries and understanding, stronger integration of research and education and identification of practical measures for action.

New trends in science and technology

13. Science and technology have moved forward dramatically, becoming increasingly complex, interdisciplinary and international. New scientific paradigms and conceptual frameworks, and new collaborative approaches are pushing the frontier in all areas of the natural, social and human sciences. Science, technology and innovation are now universally recognized as the drivers of national economic development and as key contributors to poverty reduction, disease prevention and environmental conservation. Sustainability issues have acquired renewed saliency. Thus, it is imperative that UNESCO's science programmes reflect and take advantage of the latest advances in scientific research and new conceptual thinking, as well as technological innovations.

UNESCO has a unique role to play in the sciences within the United Nations in today's world

14. UNESCO has one real comparative advantage within the United Nations system: it is the only agency which, through its mission, can integrate science, education and culture. However, given its limited budget, UNESCO cannot be a funding agency for research or development. It can act as a catalyst for actions performed in collaboration with others, thus providing significant financial leveraging and maximizing the Organization's impact. In this way, it facilitates participation in research, including the development of networks, and in the articulation and application of research results in global, regional and national endeavours. UNESCO's international credibility, special mandate for science within the United Nations system, intellectual reputation, convening power and global presence provide a solid foundation for its crucial roles as facilitator and capacity-builder.

15. In particular, the Organization acts as a facilitator of global, regional and country-level science policy development by improving the base of relevant scientific research knowledge and communicating that knowledge by promoting policy work and participating in formulating policy advice, as well as building country capacity in policy-making, scientific monitoring and benchmarking. This collective activity fits UNESCO's multilateral standing as a United Nations

agency, its cross-disciplinary capability, and its respected global reach to both governments and civil society.

UNESCO needs a new vision and forward-looking strategy with greater impact for its science programmes

16. Given its unique mandate for science, UNESCO should be the leading promoter within the United Nations system for the transformative power of scientific knowledge through fostering dialogue, cooperation, networking and knowledge-sharing with the scientific community, decision-makers and civil society. However, following a series of hearings from scientific experts from both developing and developed countries, the Committee recognizes that UNESCO has over time lost its leadership credibility as an international spokesman for science and that its programmes are now seen by the scientific community as fragmented, over-ambitious, unfocused and lacking a clear vision and scientific strategy.

17. Better priority-setting is needed in UNESCO's science programmes, based on relevance, effectiveness, impact, efficiency and sustainability. For example, UNESCO must enhance its efforts in science education and capacity-building at all levels and create opportunities to integrate education and training with research in its programmes. It is particularly important to strengthen national science systems for higher education and research.

18. The sciences portfolio should be rigorously examined on a continuous and regular basis to determine which activities are marginal, or duplicative of other United Nations or other international organizations whose efforts are more suited to the role. While long-term continuity is essential to aspects of science, it is also valuable to foster new and innovative activities. UNESCO must make strategic choices based on its mandate, a dynamic analysis of its comparative advantage and of emerging challenges and on joint and purposeful action by the United Nations system. Linking UNESCO's objectives in the sciences to the Millennium Development Goals (MDGs) of promoting international peace and of fighting poverty within the 2015 timeline is crucial to gain credibility within the United Nations system. Moreover, UNESCO's work should be considered in the context of the current larger debate on United Nations reform.

Intersectoral coordination and interdisciplinary thinking are lacking and need to be integrated within the existing activities and any new programmes and activities

19. Following extensive briefings from all UNESCO's sectors, the Committee noted a lack of interconnectedness in staffing and budget structure, creating a culture of scientific and sectoral isolation which hinders efforts to promote integrated activities, synergies among the sciences, cross-disciplinary collaboration and a focus on challenges and solutions.

20. For example, aspects of the water cycle are principally in the domain of the Division of Water Sciences within the Natural Sciences Sector. Yet all the global problems linked with water must also be considered from the viewpoint of social and human sciences, education, culture and communication and information – across all UNESCO's sectors.

21. The goals of sustainable development and a better managed environment and the mission of increasing societal research capacity are as dependent upon an understanding of human societies, approaches to risk and reward, cultural and economic influences, and individual and group decision-making, as they are on understanding of the physical world. Thus, neither natural sciences nor social and human sciences can achieve any of UNESCO's goals alone – both aspects are required.

22. At present, the Natural Sciences Sector and the Social and Human Sciences Sector are unsuccessful in building on their combined strengths to address scientific questions of societal and economic importance. UNESCO's science programmes are not planned and structured to integrate these diverse disciplines, even recognizing the differences of methodologies and practices

between the natural and social and human sciences. Thus, UNESCO is faced with an organizational challenge, that is, to foster integrated programme planning and project management with flexibility in budgeting and staffing, both at Headquarters and in the field.

23. The Committee concludes that intersectoral coordination and interdisciplinary action both between the two Science Sectors and across the Organization are at present inadequate and thus require major strengthening.

Improved coordination is needed among the intergovernmental/international science programmes (ISPs) and with other related organizations

24. Although the ISPs give UNESCO identifiable focus and long-term continuity for key global issues, the Committee noted that each one has its respective decision-making body and processes and its respective administrations and in general operates too autonomously in its scientific fields. There is considerable overlap between the ISPs, with other United Nations bodies, and with outside scientific organizations. In the case of the International Hydrological Programme (IHP), for example, there are over 20 bodies working on water issues within the United Nations alone and coordination is insufficient, even given the United Nations-wide coordinating body United Nations-Water. Other programmes, such as the International Geosciences Programme (IGCP), whose endeavours underpin the work of several ISPs, require a better scientific focus and increased emphasis on societal relevance. In another case, the International Basic Sciences Programme (IBSP), which is of strong relevance to UNESCO's capacity-building role, needs a fundamental change of perspective considering its limited internal funding. Furthermore, while the ISPs are effective partnerships between scientists and governments, their semi-independent natures complicate the development of new initiatives and the setting of new priorities more generally in the science programmes. This is particularly difficult in the Natural Sciences Sector, where currently the four environmentally related ISPs (IOC, IHP, MAB and IGCP) together expend over 70% of the regular budget for activities. The IHP alone accounts for about 40% of the regular budget for activities for the sector in the current biennium.⁶

25. Although some joint projects have been initiated, and the ISP Chairs meet at intervals, there are no mechanisms or processes to scrutinize how well the programmes collectively relate to UNESCO's mandate and its role, and to enable more intensive efforts to exploit the potential both for enhancing synergies among them and for more strategic coordination with the related activities across the United Nations system and the outside research community. Moreover, substantial savings can be expected from rationalizing their set of separate administrations.

26. The governing bodies of the ISPs should re-examine their missions, especially in the light of the overlap of their research portfolios and of scientific advancements expanding across previously defined disciplines. 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 also be considered.

Modernization of management and administrative and budget transparency need to be addressed, including the introduction of a culture of evaluation and a dynamic decentralization policy

27. The Committee noted that standard operating procedures are not apparent for project management and administration – including, but not limited to selection of projects, budget itemization at the project level, including staff costs, management of activities and accountability of projects, evaluation of and dissemination of results. The criteria for starting or continuing a programme should not be based only on its ability to attract extrabudgetary financing: the application of such funds must be open and relevant to UNESCO's priorities. The Committee concludes that at present UNESCO's science programmes require a uniform level of transparency and adherence to standard procedures across all management and budget activities.

⁶ According to document 33 C/5.

28. UNESCO should also integrate results-based budgeting and specific human resource allocation into the programme planning process. A culture of evaluation is lacking in the Organization. Member States are not provided with a critical evaluation of successful or failing programmes or projects in a timely manner. It is therefore difficult to judge the potential effectiveness of programmes relative to declared aims. Built-in programme monitoring and evaluation, with formulation of meaningful performance indicators and sunset clauses, should be applied throughout to enable decisions about renewing programme funding from one biennial programme and budget cycle to the next.

29. UNESCO needs a dynamic decentralization policy. UNESCO has a large network beyond Headquarters and field offices, which includes the National Commissions, category 1 and 2 institutes and centres, ISP National Committees and the globally distributed operational sites (such as MAB's biosphere reserves and natural World Heritage sites, etc.), UNESCO Chairs with their networks and UNESCO Clubs. The UNESCO wider "family" should work together more coherently. Work carried out away from Headquarters in field offices should be driven by local needs and feed explicitly and concretely into agreed global development goals, policies and standards (e.g. the MDGs) and by the new "One United Nations" approach at the country level. A new challenge for UNESCO in the context of current trends in United Nations reform is to create and maintain a dynamic balance between its operational activities at the national level and its global and normative actions.

UNESCO's science programmes would benefit from greater visibility and public outreach

30. Science communities, academia, the media in its various forms, the public and especially young people, have insufficient information about UNESCO's work in the sciences. UNESCO needs to interact more effectively with these communities, as well as strengthen the participation of leading scientists in its science programmes to raise their visibility. UNESCO's science portfolio needs a new image, a unifying theme – "Access to Scientific Knowledge for All".

31. While the absence of an effective communications strategy involving proactive outreach is a great obstacle to UNESCO's efforts to promote its work in the sciences, striving for visibility cannot be an empty process. The real key to increasing visibility will be the overall strengthening of the relevance and impact of UNESCO's science portfolio. In addition, UNESCO must put the results of its programmes in a format understandable to policy-makers.

32. UNESCO needs to improve its outreach, through an innovative approach to partnerships with other organizations, both within and outside the United Nations, with the aim of increasing programme effectiveness, complementarity and efficiency.⁷ At the international level, these include the International Council for Science (ICSU), the Academy of Sciences for the Developing World (TWAS), the International Social Science Council (ISSC), the International Council for Philosophy and Humanistic Sciences (ICPHS) and the World Academy of Young Scientists (WAYS), among many others. At the regional level, these include the Islamic Educational, Scientific and Cultural Organization (ISESCO), the Arab League Educational, Cultural and Scientific Organization (ALECSO) and the Organization of American States (OAS).

33. UNESCO also needs to interact more closely with its unique network of National Commissions. Some already play a strong role in raising the perception of governments, parliamentarians, private bodies, schools and the general public to UNESCO's work in the sciences, and in helping to promote UNESCO's programme objectives at country level. While scientists are represented in some National Commissions, all National Commissions should recognize the importance of including scientists in their membership, in order for them to be effective partners in matching the needs of Member States in the sciences with UNESCO's

⁷ For example, the United Nations Development Programme's recent Human Development Report *Beyond scarcity: power, poverty and the global water crisis* did not mention UNESCO's science programmes nor its associated ISPs a single time in its 440 pages. The UNDP report does, however, quote UNESCO's Education Sector many times on matters of world literacy levels and educational developments.

programmes and priorities. Better links made from UNESCO's field offices would play a positive role in this effort.

IV. A NEW VISION

“As a specialized agency of the United Nations, UNESCO contributes to the building of peace, the alleviation of poverty, sustainable development and intercultural dialogue through education, the sciences, culture, communication and information.” (Mission statement in the Draft 34 C/4)

34. In formulating its vision and strategy for the sciences in UNESCO, the Committee recognized that:

- UNESCO's multifaceted mandate specifically highlights the role of the sciences, and UNESCO is the only United Nations agency with responsibilities for ethics. In addition, UNESCO is recognized for a number of global lead roles and tasks.
- An important asset of UNESCO is its broad array of functions enabling the Organization to operate in numerous modes: at the global level, through normative, policy, advocacy and monitoring work, as

well as operational activities at the country, subregional and regional levels.

- Through its science programmes, UNESCO promotes global research, human and institutional capacity-building, networking, policy research and evidence-based policy debate, monitoring, collecting and disseminating best practices and mobility and exchange of scientific researchers.
- The new trends in United Nations reform offer UNESCO the unprecedented opportunity to be a key contributor in the sciences to the “One United Nations” approach.

“Today, more than ever, science is a vital source of education, intellectual and cultural enrichment. Moreover, when we speak of knowledge economies, we mean today that they are science-based: science leads to technological advances and economic benefits that offer unique opportunities to meet basic human needs, reduce poverty, protect the environment and improve quality of life.” (Director-General Koïchiro Matsuura's address to the Ministerial Round Table on the Basic Sciences, 13 October 2005)

35. The Committee's vision for UNESCO is an organization recognized for its leadership role within the United Nations system, based on a strategic reorientation of its science portfolio towards contributing to poverty reduction and peace, and consisting of a set of well-managed timely programmes, reflecting cutting edge interdisciplinary science, taking maximum advantage of all of its assets, demonstrating its comparative advantages, leading in new ideas, ensuring quality and excellence, attracting the best scientists, and demonstrating to governments that investment in science and technology is vital to human, social and economic progress.

36. A key feature of this vision is the innovative and synergistic way that UNESCO's science portfolio will bring together the natural, social and human sciences in programmes and activities designed to tackle the multidimensional aspects of poverty and conflicts.

37. The world has become more agglomerated and integrated, due to urbanization on the one hand and developments in transportation, communications and media technology on the other hand. Thus the consequences of conflicts or disasters are more visible and affect a larger number of people. The responses required are towards greater preparedness in order to reduce vulnerability and more rapid and effective actions to face conflicts and disasters.

38. In the Committee's vision, UNESCO, through its science programmes, will contribute to poverty reduction and peace by increasing opportunities and access to knowledge and basic services through appropriate technologies, leading to better living standards, especially for traditionally excluded segments of the population. The science programmes will target on benefiting society and empowering people through human and institutional capacity-building and education at all levels.

39. A further key objective of UNESCO's science portfolio will be dialogue and integration of mainstream science with traditional, local and indigenous sciences of diverse cultures to enrich the overall perspectives and approaches in its programmes with diversity, sustainability and distributive justice.

40. The future UNESCO science portfolio will benefit from a flexible and efficient Organization, operating under rigorous principles of evaluation, management and budget transparency, capable of adapting to new global challenges, taking full advantage of all its sectoral expertise and with optimal cooperation between the Secretariat and UNESCO's extended family, especially the National Commissions.

V. RECOMMENDATIONS FOR A NEW STRATEGY

41. In response to the main findings elaborated above, the Committee proposes the following nine sets of recommendations for UNESCO's science portfolio which are detailed below:

- Policy advice towards capacity-building needs strengthening.
- Programmes must address new scientific paradigms and "cutting edge" research.
- Interdisciplinary and intersectoral activities need major strengthening.
- Science education should be a high priority.
- The ISPs need better coordination and synergy.
- Outreach and partnerships need improvement.
- Rigorous and transparent selection, assessment and evaluation of programmes and projects are required.
- UNESCO's leadership must be enhanced through new global initiatives.
- A Science Advisory Committee is required.

RECOMMENDATION 1

Policy advice towards capacity-building needs strengthening

42. The Committee recommends that:

- 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, 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.

RECOMMENDATION 2

Programmes must address new scientific paradigms and incorporate “cutting edge” research

43. The Committee recommends that:

- 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.

RECOMMENDATION 3

Interdisciplinary and intersectoral activities need major strengthening

44. The Committee recommends that:

- UNESCO should assign an important priority to promoting intersectorality and interdisciplinarity in documents 34 C/4 and 34 C/5. 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.

RECOMMENDATION 4

Science education should be a high priority

45. 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".

46. The Committee recommends that:

- UNESCO should increase efforts to assist countries to develop their 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.
- The science programmes should focus on young researchers, helping to prepare future leaders in science and technology.

RECOMMENDATION 5

The ISPs need better coordination and synergy

47. The Committee recommends that:

- 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.
- The ISPs should be evaluated periodically to ensure that they incorporate state-of-the-art scientific research and knowledge in their activities, prevent intellectual overlap with other activities, promote coordination and develop cross-cutting activities across their programmes, with other relevant United Nations entities and with other relevant national and international organizations, and leverage resources through appropriate partnerships.
- Better coordination and cooperation is needed among the ISPs, as well as with other United Nations programmes.
- 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 also be considered.
- The various 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 these Committees and the UNESCO National Commissions.

RECOMMENDATION 6

Outreach and partnerships need improvement

48. The Committee recommends that:

- 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 agencies, research councils, space agencies, NGOs, etc.) in order to implement joint programmes.
- UNESCO should consider establishing a “UNESCO science for peace prize”.

RECOMMENDATION 7

Rigorous and transparent selection, assessment and evaluation of programmes and projects are required

Programme/Project selection:

49. The Committee recommends:

- Screening procedures to ensure that all approved activities are relevant to UNESCO's Medium-Term Strategy and overarching objectives as defined by the Member States.
- All programmes to demonstrate UNESCO's unique contribution/comparative advantage.
- 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.

Assessment:

50. The Committee recommends:

- All programmes to be assessed on a continuous and regular basis to determine:
 1. existing areas that should be continued and developed further;
 2. existing areas, which have become either less relevant or overlapping, and which should therefore be phased out or passed on to other bodies; and
 3. new forms of knowledge and innovative forms of action, in recognition of new trends and emerging priorities.

51. Such an assessment will lead to a science portfolio for UNESCO which is easily distinguishable from other United Nations agencies, and based on UNESCO's strategic priorities and competencies, as well as appropriate new challenges. This portfolio should be coordinated with and take full advantage of partnerships with other United Nations entities and international scientific bodies with a view towards leveraging resources and improving efficiency and effectiveness.

52. During its "information-gathering" phase, the Committee noted the imbalance in funding in the science programmes in favour of water-related activities. Therefore, the Committee recommends that:

- Water-related activities should focus more on policy research and capacity-building.
- UNESCO should take a more comprehensive approach in its environmental programmes, integrating social, cultural and educational perspectives and covering issues such as energy conservation, biodiversity, natural resources management, climate change, etc.

Monitoring and evaluation

53. The Committee recommends that:

- 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 (to include, at minimum, the United Nations criteria of relevance, efficiency, effectiveness and sustainability, as well as feasibility, impact and progress towards goals) against an appropriate and realistic set of metrics and benchmarks.

RECOMMENDATION 8

UNESCO's leadership must be enhanced through new global initiatives

54. The Committee recommends that UNESCO should:

- 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 for Statistics (UIS).

THE DIRECTOR-GENERAL'S COMMENTS ON THE REPORT

62. The Director-General found this report to be very useful and reviewed the findings and recommendations with great attention. He expresses his sincere thanks to the Overall Review Committee for providing important views, many of which have been integrated in the process of drafting documents 34 C/4 and 34 C/5. His comments on the recommendations are as follows.

63. Regarding Recommendation 1, the Director-General fully supports 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. He notes that this issue is specifically addressed in draft document 34 C/4 in overarching objective 2 (“Mobilizing sciences knowledge and policy for sustainable development”) and strategic programme objective 4 (“Fostering policies and capacity-building in science, technology and innovation, with special emphasis on the basic sciences and energy”).

64. The Director-General also agrees with Recommendation 2, that UNESCO’s science programmes must address new scientific paradigms and incorporate “cutting edge” research and points out that this language is contained in overarching objective 2. Regarding the detailed recommendation on the use of UNESCO inscribed sites for coordinated global monitoring of climate change, biodiversity loss and sustainable development, the Director-General notes that this is addressed in strategic programme objective 3 (“Leveraging scientific knowledge for the benefit of the environment and the management of natural resources”).

65. As to Recommendation 3, that interdisciplinary and intersectoral activities require major strengthening, 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. He also points out that overarching objective 2 states that “All programmes will integrate interdisciplinary approaches, drawing on contributions from all of UNESCO’s fields of competence”.

66. Recommendation 4, that science education should be a high priority, the Director-General finds particularly important. He notes that science education is specifically addressed in strategic programme objective 2 (“Fostering quality education for all – from access to success in the pursuit of sustainable development”) and strategic programme objective 4. The Director-General further observes, as an important example of UNESCO’s ongoing activities in science education, that the 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.

67. Regarding Recommendation 5, that the intergovernmental and international programmes (ISPs) need better coordination and synergy, the Director-General observes that this issue requires the special endorsement of the General Conference. The detailed recommendation on the need for improved cooperation with other United Nations programmes is already included in strategic programme objective 3. However, the Director-General does not concur with the Committee’s findings that there is overlap and insufficient coordination on freshwater issues within the United Nations system, since the International Hydrological Programme is the only science programme within the United Nations system dealing with freshwater issues and closely interacts with the United Nations-wide coordinating body United Nations-Water.

68. The Director-General welcomes Recommendation 6 on the need for improved outreach and partnerships, noting that draft document 34 C/4 already highlights this issue in the sections called “Constituencies, Partners and Partnerships” and “Visibility and Public Information”. 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. However, the Director-General considers that the specific recommendation to establish a UNESCO science for peace prize is not necessary 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 the establishment of UNESCO prizes, which stresses in particular the need for extrabudgetary funding for all UNESCO prizes.

69. The Director-General agrees 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". However, 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.

70. The Director-General fully supports Recommendation 8, that UNESCO's leadership in the sciences must be enhanced through four new global initiatives. 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. 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 ("Monitoring critical and emerging ethical and societal issues").

71. The Director-General has carefully examined Recommendation 9 on the establishment of a scientific advisory council and considers that this issue requires a more comprehensive analysis, 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. However, in order to strengthen intersectorality and interdisciplinary activities, the Director-General will establish a task force within the Secretariat under his authority.

72. The Director-General takes note of the options put forward by the Committee (without consensus) for structural changes in the science sectors. He also observes that, in his capacity of chief administrative officer of the Organization, any structural changes to the sectors are fully within the prerogative of the Director-General.

73. The Director-General takes responsibility to ensure that the recommendations in this report which are approved by the Executive Board and the General Conference receive due attention.

PROPOSED DRAFT DECISION

74. The Executive Board may wish to consider the following draft decision:

The Executive Board,

1. Recalling 33 C/Resolution 2, concerning the review of Major Programmes II (Natural sciences) and III (Social and human sciences),
2. Having examined document 176 EX/7 and its annexes,
3. Expressing appreciation to the Overall Review Committee for its comprehensive report,
4. Taking note of the Director-General's comments on the report,

5. Recommends to the General Conference at its 34th session that it approve the broad thrusts of the Committee's Recommendations 1-8, bearing in mind that the Director-General (i) does not concur that UNESCO should establish a science for peace prize at present (para. 68) and (ii) considers that Recommendation 9 requires further analysis (para. 71).

ANNEX I

TERMS OF REFERENCE OF THE OVERALL REVIEW COMMITTEE

The Terms of Reference adopted at the Committee's first meeting from 13 to 15 March 2006 are as follows.

1. PURPOSE

The purpose of the creation of the Review Committee is to carry out an overall review of UNESCO's Major Programme II (Natural sciences) and Major Programme III (Social and human sciences) against the background of the Organization's mandate, country and regional priorities and today's global needs, which would form an integral part of the preparation of the Draft Medium-Term Strategy for 2008-2013 (34 C/4) and the Draft Programme and Budget for 2008-2009 (34 C/5) and contribute to programme planning.

2. MANDATE

Overall objective: contribute to the elaboration of a forward-looking strategic framework for the science programmes of UNESCO, in the light of three interrelated needs:

- the need for UNESCO to take a forward-looking perspective on prioritization and promote a progressive agenda giving proper emphasis to emerging trends and new priorities;
- the need to reinforce the essential role of the sciences for UNESCO in the fight against poverty, with contributions and benefits to institutional and human capacity-building, education and sustainable development;
- the need to contribute to the production of new forms of knowledge and the implementation of innovative forms of action for resolving problems, given the new complexities of the strategic direction of science at the global level.

Achieving the overall objective through specific assessments and reflections

- Assessment of the relevance, strengths and impact of the two UNESCO science programmes in the light of its core competencies and its programmatic priorities in relation to the international development goals expressed in particular in the Millennium Declaration and the Millennium Development Goals, the 2005 World Summit Outcome document, the Budapest World Science Conference and the World Summit on Sustainable Development and its follow-up as well as United Nations inter-agency arrangements, plans and action.

In that framework, the review should focus on:

- (a) the role and relevance of the intergovernmental mechanisms set up within the two science programmes, in particular the role of the five established international scientific programmes and the newly established IBSP, the ICB, the ICBG – as well as COMEST;
- (b) the role and added value of other established mechanisms such as the category 1 and 2 UNESCO institutes and centres, UNESCO Chairs and cooperation with different academic/scientific and non-governmental organizations which have received and continue to receive UNESCO support, including through framework agreements or direct contributions;

- (c) assessment of the role of Major Programmes II and III in enhancing intersectorality.
- Assessment of UNESCO's current role and comparative advantage in the global science community and, in that context, of the division of labour and tasks in relation to other relevant intergovernmental and non-governmental organizations.
 - Forward-looking assessment of UNESCO's role in responding to emerging and future trends and challenges in the sciences.
 - Identify future core competencies for UNESCO in the science area, including linkages between SC and SHS aimed at complementarity and harmonization as well as partnerships and coordination with other entities of the United Nations system – in particular, in the area of human rights, with the Office of the High Commissioner for Human Rights – and other intergovernmental organizations, scientific bodies, non-governmental organizations, national governments and the private sector; in that context, reflect on the interface between the social and human sciences and the natural sciences.

Contribution to programme planning: due consideration shall be given to the following elements:

- UNESCO's General Conference at its 33rd session has laid out the general framework both for the Director-General's consultation process on the Organization's Medium-Term Strategy for 2007-2013 (34 C/4) and the future structure of that document, on the basis of debates in all General Conference commissions on the preparation of document 34 C/4;
- in 2004-2005, UNESCO's General Conference and Executive Board have approved resolutions and decisions covering a wide array of issues relating to the two science programmes of the Organization which will have a bearing, in different ways, on the next programme planning exercise on documents 34 C/4 and 34 C/5;
- ongoing developments within the United Nations system reflected in United Nations General Assembly resolutions and recent relevant international reports and initiatives;
- in March 2006, the Director-General will launch the consultation process for documents 34 C/4 and 34 C/5 with a questionnaire to UNESCO's Member States, National Commissions, other agencies of the United Nations system, IGOs and NGOs having official relations with UNESCO, to be followed by a series of regional consultations with National Commissions during the period May-July 2006, all of which will provide input for the Director-General's preliminary proposals to be submitted to the Executive Board at its 2006 autumn session.

3. COMPOSITION

The review will be carried out by a Review Committee involving the participation of a broad multidisciplinary team of scientific experts from Member States, inclusive of all regions, appropriate intergovernmental and international non-governmental organizations, and senior Secretariat officials, working in close partnership with all involved sectors and offices of the Secretariat. The Review Committee will be chaired by the Deputy Director-General of UNESCO.

The Review Committee will be composed of 15 experts and five senior officials from the UNESCO Secretariat.

A. UNESCO Secretariat

The following UNESCO Secretariat members will be members of the Review Committee: DDG (Chairperson of the Review Committee), ADG/SC, ADG/SHS, ADG/IOC and DIR/BSP. DIR/IOS will attend as Observer.

Other UNESCO Secretariat members would be called upon to assist fully the Review Committee, providing promptly available information and documentation that may be required on all relevant issues such as programming, evaluation, staff, structure, etc., relating to the two major programmes on which the Review Committee may seek information, data or documentation.

B. Experts

Fifteen high-level experts have been appointed by the Director-General on the basis of consultations with Member States (through electoral groups), including experts on natural sciences, social and human sciences, science policy and social development issues, with a view to ensuring both a global coverage and a holistic approach.

4. WORKING METHODS

The Review Committee, on the basis of its calendar of work, is expected to carry out the review work through different modalities, including plenary meetings at Headquarters; establishment of thematic subgroups; hearings of high-level experts, decision-makers or representatives of major intergovernmental and non-governmental as well as regional organizations; consultation through questionnaires on specific issues, to be addressed to key national, regional and international stakeholders; commissioning of specific mapping studies, using to the largest extent possible the most cost-efficient means and networking facilities. Available documentation, data and information will be collected and provided by the UNESCO Secretariat, institutional counterparts, specialists, etc.

The working methods will be reviewed and agreed upon by the Review Committee.

The Review Committee will be assisted in its work by an ad hoc secretariat. The Secretary of the Review Committee (at Director level) will be assisted by staff members from UNESCO.

ANNEX II

LIST OF COMMITTEE MEMBERS

EXTERNAL MEMBERS

Ms Fatma Attia (Egypt)

Expertise: Hydrology
Professor Emeritus, National Water Research Centre
Director of the Water Boards Project

Mr Jean Audouze (France)

Expertise: Astrophysics
Astrophysicist and Research Director at the Paris Astrophysics Institute, Centre National de la Recherche Scientifique – CNRS, Paris, France
Vice-President, French National Commission for UNESCO

Mr Rachid Benmokhtar Benabdellah (Morocco)

Expertise: Aeronautical Engineering
President, University Al Akhawayn, Ifrane, Morocco
President, National Observatory of Human Development

Mr Alexander Boksenberg (United Kingdom)

Expertise: Physical Sciences, Engineering, Astronomy
Honorary Professor of Experimental Astronomy, University of Cambridge, United Kingdom
Chairperson, U.K. National Commission for UNESCO and Chairperson of its Natural Sciences Committee

Mr Ian Bryceson (Norway)

Expertise: Marine and Coastal Ecology; Socio-Ecological Resilience and Vulnerability
Professor, Department of International and Development Studies, Norwegian University of Life Sciences

Mr Marco Gandásegui (Panama)

Expertise: Sociology
Professor, University of Panama, Panama City
Fellow, Centro de Estudios Latinoamericanos (CELA), Panama

Mr Ping Huang (China)

Expertise: Sociology
Director-General, Bureau for International Cooperation, Chinese Academy of Social Sciences (CASS), Beijing, People's Republic of China

Mr Ashok Jhunjunwala (India)

Expertise: Electrical Engineering
Professor, Department of Electrical Engineering, Indian Institute of Technology (IIT), Chennai, India
Member, Prime Minister's Scientific Advisory Board

Mr Babacar Kante (Senegal)

Expertise: Public Law
Professor, Public Law and Political Sciences, Gaston Berger University, Saint-Louis, Senegal

Ms Romyana Mihneva (Bulgaria)

Expertise: History and Culture of Early Modern Europe and the Balkans (fiftieth-eightieth centuries)
Professor, Department of History and European Studies, Varna Free University

Ms Kathie Olsen (United States of America)

Expertise: Neuroscience
Deputy Director, U.S. National Science Foundation, Washington D.C., United States of America

Mr Rem Petrov (Russian Federation)

Expertise: Immunology
Adviser, Russian Academy of Sciences

Mr Luis Alberto Quevedo (Argentina)

Expertise: Sociology
Director of the “Communications” Programme of the Facultad Latinoamericana de Ciencias Sociales (FLACSO)
Permanent Associate Professor of Political Science, Sociology Degree Course, University of Buenos Aires (UBA)

Mr Shinichi Yamamoto (Japan)

Expertise: Economics/Higher Education
Professor, Research Institute for Higher Education, Hiroshima University, Japan

INTERNAL MEMBERS

Mr Marcio Barbosa, Deputy Director-General of UNESCO and Chair of the Committee

Mr Walter Erdelen, Assistant Director-General for Natural Sciences (SC)

Mr Patricio Bernal, Assistant Director-General, Intergovernmental Oceanographic Commission (IOC)

Mr Pierre Sané, Assistant Director-General for Social and Human Sciences (SHS)

Mr Hans D’Orville, Director, Bureau of Strategic Planning (BSP)

OBSERVER

Mr John Parsons, Director, Internal Oversight Service (IOS)

ANNEX II

**DECISION OF THE EXECUTIVE BOARD AT ITS 176TH SESSION CONCERNING THE REPORT
BY THE DIRECTOR-GENERAL ON THE CONCLUSIONS AND RECOMMENDATIONS
OF THE OVERALL REVIEW COMMITTEE FOR MAJOR PROGRAMMES II AND III**

**7 Report by the Director-General on the conclusions and recommendations of the
Overall Review Committee for Major Programmes II and III (176 EX/7; 176 EX/66 Part I;
176 EX/67)**

The Executive Board,

1. Recalling 33 C/Resolution 2 concerning the review of Major Programmes II and III,
2. Having examined document 176 EX/7 and its annexes,
3. Recognizing, as stated in document 176 EX/7, that the natural, social and human sciences are now universally viewed as the drivers of national economic and social development and as key contributors to poverty reduction and environmental conservation,
4. Acknowledging the need for natural, social and human sciences to contribute to the achievement of UNESCO's mission,
5. Expresses its appreciation of the work of the Overall Review Committee for Major Programme II (Natural Sciences) and III (Social and Human Sciences) as a valuable and timely contribution to further the relevance and effectiveness of UNESCO's activities in the field of natural, social and human sciences,
6. Recognizes the potential of the Organization to become the leading promoter within the United Nations system of the transformative power of scientific knowledge, building on its intellectual reputation, convening ability and global presence, which provide a solid foundation for its crucial roles as policy facilitator and capacity-builder in global, regional and country-level endeavours;
7. Takes note of the strengths as well as the weaknesses identified by the Committee;
8. Also takes note of the Director-General's comments on the Committee's recommendations;
9. Underscores that the Committee's recommendations along with the Director-General's comments should be taken into account in documents 34 C/4 and 34 C/5;
10. Takes note of the Committee's findings that UNESCO needs some strategic reorientation of its activities and operational methods in the field of the natural, social and human sciences;
11. Taking into account the Director-General's proposal that document 34 C/4 be considered as a rolling document,
 - (a) requests the Director-General to forward the report and recommendations of the Overall Review Committee for Major Programmes II (Natural Sciences) and III (Social and Human Sciences), as well as his comments on that report, to the governing bodies of the intergovernmental/international science programmes for their information, and to invite those bodies to transmit their comments thereon to the Executive Board;
 - (b) also requests the Director-General to conduct wide-ranging consultations on the possible implementation of the Review Committee's recommendations, and to take appropriate steps in order to allow for informed decision-making regarding UNESCO's core functions and competencies in the field of science, as indicated by the Director-General in his introduction to document 34 C/4.

ANNEX III

ANNOTATIONS BY THE SECRETARY OF IHP TO THE REPORT BY THE DIRECTOR-GENERAL ON THE CONCLUSIONS AND RECOMMENDATIONS OF THE OVERALL REVIEW COMMITTEE FOR MAJOR PROGRAMMES II AND III (176 EX/7)³

Paragraph 12. (“Major threats [...]”)

ANNOTATION 1: It is to be noted that IHP is involved and dealing with all the major threats mentioned (global climate change, emergence and spread of infectious diseases and loss of biological diversity).⁴ Furthermore, since IHP-V (1996-2001), IHP is organised exactly along these scales (global, regional or country level), as well as along lines designed to promote the integration of hydrological research, water resources research, and water education.⁵

Paragraph 13. (“Sustainability issues [...]”)

ANNOTATION 2: Since IHP-IV (1990-1995) sustainability of water management, and vice versa, the critical issues of water for sustainability, are being continuously addressed by IHP.⁶

Paragraph 16. (“However, following a series [...]”)

ANNOTATION 3: This is certainly not the case of IHP. None of the experts at the hearing raised this issue as a criticism of UNESCO’s water programmes. On the contrary, many top experts in hydrology and water resources management have publicly praised UNESCO’s past and current activities in water-related matters.⁷ It can be noted that the external evaluation of the last phase (IHP-V), carried out in consultation with 86 Member States, recognized “several major achievements with IHP-V, including [...] scientific merit”.⁸

Paragraph 17. (“Better priority-setting is needed [...]”)

ANNOTATION 4. IHP priorities are set by the Member States, through the IHP Intergovernmental Council, and are based in multiple criteria, including relevance, effectiveness, impact, efficiency and sustainability.

Paragraph 18. (“The sciences portfolio [...]”)

ANNOTATION 5. Regarding the alleged “marginal” character of UNESCO’s sciences portfolio, it should be noted that as far as the water programmes are concerned, UNESCO now has by far the most extensive combined water programmes of the whole UN system; in fact more than the rest of the UN system combined. For non-duplication and coordination with the water-related programmes of other United Nations or other international organizations see ANNOTATION 11.

Paragraph 18. (“Linking UNESCO’s objectives [...]”)

ANNOTATION 6. The main themes of the current IHP-VI (2002-2007) and the planned IHP-VII (2008-2013), are directly linked to the MDGs, including MDG 1 on the eradication of extreme poverty and hunger.⁹ While there is no MDG directly related to the promotion of international peace, IHP is contributing to this theme via its “From Potential Conflict to Co-operation Potential” (PCCP) Programme.

³ Paragraph numbers refer to the paragraphs in 176 EX/7. Quotations are indicative of the portion of the paragraph to which the annotation refers.

⁴ See for instance the strategic plan of IHP-VI (IHP/IC-XV/Inf.29 and IHP/IC-XV/3) and themes 1 (Adapting to the Impacts of Global Changes on River Basins and Aquifer Systems), 3 (Ecohydrology for Sustainability) and 4 (Water and Life Support Systems) on the draft strategic plan of IHP-VII (IHP/IC-XVII/Inf. 9)

⁵ See the detailed Plan of the fifth phase (1996-2001) of the IHP (SC-96/WS/24).

⁶ Sustainability was a central part of IHP ever since IHP-IV (entitled “Hydrology and Water Resources for Sustainable Development in a Changing Environment” – see document SC/91/WS/33).

⁷ An example is presented in Annex IV of this document,

⁸ IHP/IC-XVII/12.

⁹ For IHP-VII see document IHP/IC-XVII/Inf. 9, Annex II (IHP Phase VII Themes, Focal Areas and Linkage to Ongoing IHP Initiatives, Contribution to MDGs, Support to the Water for Life Decade and the UN Decade of Education for Sustainable Development).

Paragraph 19.

ANNOTATION 7. On one hand, the current staffing and budgeting structure of UNESCO differs from Headquarters to the field offices, and varies across Sectors, Divisions, and Programmes. On the other hand, the current structure seeks to guarantee that the resources allocated by the General Conference to specific areas are in fact used for those areas and not “interconnected” with activities that do not correspond to the decisions taken by the Member States. In the case of IHP, the current structure has not isolated scientifically or sectorally the Programme (see ANNOTATIONS 8 and 9). As stated in the Review Report Recommendation 3 paragraph 44, bullet-point 3), intersectoral collaboration should be considered as a means to an end – the effective implementation of the Programme – and not an end in itself. In this perspective, the IHP has established appropriate interdisciplinary and intersectoral partnerships whenever suitable, including very close connections with diverse disciplines of knowledge. Such disciplines include, for instance, history, sociology, cultural anthropology, physical and social geography, pedagogy, diplomacy, law and psychology, to mention a just few directions into which UNESCO’s water programmes have been lately expanded into. It often happened, however, that the required expertise was not found in-house. Therefore, the overemphasis on intersectorality may prove to be inadequate and even counter-productive. Intersectorality can be regarded as the in-house implementation of interdisciplinarity activities, provided that the required expertise is indeed available in other sectors. In this context, past attempts to foster integrated programme planning and project management with flexibility in budgeting and staffing have in many cases been proved inadequate in practice and were discontinued by the General Conference. These concerns seem to have been considered in the proposed Intersectoral platforms, as currently presented in the Annex to draft 34 C/5, which overall seem to represent a viable strategy.

Paragraph 20.

ANNOTATION 8. While aspects of the water cycle are indeed mainly in the domain of the Division of Water Sciences, the global issues linked with water are being systematically addressed from the perspectives of the natural sciences, social and human sciences, education, culture and communication and information. This interdisciplinary approach, also referred to in the previous annotation, is strongly integrated in the current phase of IHP and enhanced by multiple actions developed in collaboration with other sectors of UNESCO.¹⁰ This is also the case for the forthcoming IHP-VII (2008-2013), a 6-year phase matching the 34 C/4 strategic planning period. The IHP-VII Draft Plan has been designed by an interdisciplinary Task Force (including a hydrologist, an engineer, a geologist, a biologist, a forester, a public-health social scientist, an educator and an economist), over the last three years in close cooperation with Member States, through and with the active participation and contribution of eighty-two IHP National Committees.¹¹ The Strategic Plan for IHP-VII demonstrates a further strengthening of interdisciplinarity.¹² This is evident from its title – *Water Dependencies: Systems under Stress and Societal Responses* – which refers directly to the interaction between natural and processes with regards to water resources. In fact, approximately 30 per cent of IHP-VII is devoted to truly interdisciplinary themes, cutting across natural sciences, engineering, technology, social sciences, culture, education, and communication. A sample of those interdisciplinary Focal Areas under IHP-VII Theme 2 (Strengthening Water Governance for Sustainability) is given as follows:

- Focal area 2.1 - Cultural, societal and scientific responses to the crises in water governance
- Focal area 2.2 - Capacity development for improved governance; enhanced legislation for wise stewardship of water resources
- Focal area 2.3 - Governance strategies that enhance affordability and assure financing
- Focal area 2.4 - Managing water as a shared responsibility across geographical & social boundaries
- Focal area 2.5 - Addressing the water-energy nexus in basin-wide water resources

¹⁰ See the strategic plan of IHP-VI (IHP/IC-XV/Inf.29 and IHP/IC-XV/3).

¹¹ See IHP/Bur-XXXVI/15 (2004), IHP/IC-XVI/9 (2004), IHP/Bur-XXXVIII/9 (2005), IHP/Bur-XXXIX/10 (2006) and IHP/IC-XVII/Inf. 9 (2006).

¹² IHP/Bur-XL/11.

Such areas are deeply rooted in interdisciplinarity and, when feasible, involve UNESCO-wide intersectoral collaboration.¹³ Mention must also be made of the various major water-related interdisciplinary programmes, such as PCCP (From Potential Conflict to Cooperation Potential)¹⁴,

¹³ Collaborative initiatives with the Culture Sector include, for example, joint activities in (1) Water and Cultural Diversity at the Third World Water Forum; (2) organizing the International Symposium "Conserving Cultural and Biological Diversity: The Role of Sacred Natural Sites and Cultural Landscapes" (2005) and (3) the World Water Day (2006) on Water and Culture (See, for instance, the chapter "Water and Cultural Diversity" on the *Proceedings 3rd World Water Forum* (Kyoto, Japan, 16-17 May 2003) and the forthcoming Spanish version of the book "Water and Indigenous Peoples", co-published by LINKS, the Culture Sector and IHP). For collaboration with the Social and Human Sciences Sector see ANNOTATION 2; for collaboration with the Education Sector and with the Communication and Information Sector see ANNOTATION 27.

¹⁴ PCCP publications include:

- Fekri A. Hassan, Martin Reuss, Julie Trotter, Christoph Bernhardt, Aaron T. Wolf, Jennifer Mohamed-Katerere and Pieter van der Zaag, *History and Future of Shared Water Resources*, UNESCO-IHP, 150 p.
- Stefano Burchi and Melvin Spreij, *Institutions for International Freshwater Management*, UNESCO-IHP, 51 p.
- Frederick Lorenz, *The Protection of Water Facilities under International Law*, UNESCO-IHP, 46 p.
- Sergei Vinogradov, Patricia Wouters and Patricia Jones, *Transforming Potential Conflict into Cooperation Potential: The Role of International Water Law*, UNESCO-IHP, 106 p.
- K.D.W. Nandalal and Slobodan P. Simonovic, *State-of-the-Art Report on Systems Analysis Methods for Resolution of Conflicts in Water Resources Management*, UNESCO-IHP, 127 p.
- Ali M. Vali, Sree N. Sreenath and Gundo Susiarjo, *An Educational Tool to Examine the Development Constraints in the Limpopo River Basin*, UNESCO-IHP, 50 p.
- Yona Shamir, *Alternative Dispute Resolution Approaches and their Application*, UNESCO-IHP, 43 p.
- Branko Bosnjakovic, *Negotiation in the Context of International Water-Related Agreements*, UNESCO-IHP, 50 p.
- Philippe Barret, Alfonso Gonzalez avec les contributions de Yannick Barret et Céline Olivier, *Société civile et résolution des conflits hydriques*, UNESCO-IHP, 78 p.
- Eric Mostert, *Conflict and Cooperation in the Management of International Freshwater Resources: A Global Review*, UNESCO-IHP, 63 p.
- Aaron T. Wolf, Shira B. Yoffe and Mark Giordano, *International Waters: Indicators for Identifying Basins at Risk*, UNESCO-IHP, 30 p.
- Pal Tamas, *Water Resource Scarcity and Conflict: Review of Applicable Indicators and Systems of Reference*, UNESCO-IHP, 29 p.
- UNESCO FAO book on *Groundwater in International Law*
- William J. Cosgrove, *Water security and peace - A synthesis of studies prepared under the PCCP-Water for Peace process*, (compiled by), UNESCO-IHP, 108 p.
- *A Summary of PCCP Publications 2001-2003*, UNESCO-IHP, 34 p.
- Ti Le-Huu and Lien Nguyen Duc in cooperation with Apichart Anukularmphai, Do Hong Phan, Khammone Ponekeo, Pech Sokhem and Zhang Hai-Lun, *Mekong Case Study*, UNESCO-IHP, 56 p.
- Viktor Dukhovny and Vadim Sokolov, *Lessons on Cooperation Building to Manage Water Conflicts in the Aral Sea Basin*, UNESCO-IHP, 50 p.
- Munther J. Haddadin and Uri Shamir, *Jordan Case Study*, UNESCO-IHP, 41p.
- Alan Nicol, *The Nile: Moving Beyond Cooperation*, UNESCO-IHP, 33 p.
- Álvaro Carmo Vaz and Pieter van der Zaag, *Sharing the Incomati Waters: Cooperation and Competition in the Balance*, UNESCO-IHP, 102 p.
- Peter Nachtnebel, *Danube Case Study*, UNESCO-IHP (to be published).
- Ine D. Frijters and Jan Leentvaar, *Rhine Case Study*, UNESCO-IHP, 33 p.
- Keith W. Muckleston, *International Management in the Columbia River System*, UNESCO-IHP, 47 p.
- Raúl Artiga, *The Case of the Trifinio Plan in the Upper Lempa: Opportunities and Challenges for the Shared Management of Central American Transnational Basins*, UNESCO-IHP, 13 p.
- ESTUDIO DE CASO DEL LAGO TITICACA, *Un Documento Elaborado para la División de Ciencias de Agua de UNESCO*, Realizado por Ing. Isaac Martínez Gonzáles, Dr. Rolando Zuleta Roncaland Ing. Aníbal Pacheco Miranda
- Jerome Delli Priscoli, *Participation, Consensus Building and Conflict Management Training Course*, UNESCO-IHP, 179 p.
- WaterNet, CCR, ISRI, Catalic, UNESCO-IHE Delft, UZ, *Basics of Water Resources Course Book*, UNESCO-IHP, 97 p.
- WaterNet, CCR, ISRI, Catalic, UNESCO-IHE Delft, UZ, *Basics of Water Resources Reader*, UNESCO-IHP, 66p.
- WaterNet, CCR, ISRI, Catalic, UNESCO-IHE Delft, UZ, *Conflict Prevention and Cooperation in International Water Resources-Course Book*, UNESCO-IHP, 269 p.
- WaterNet, CCR, ISRI, Catalic, UNESCO-IHE Delft, UZ, *Conflict Prevention and Cooperation in International Water Resources-Reader*, UNESCO-IHP, 211 p.

the History of Water and Civilization reference book series, the HELP programme, the International Flood Initiative and the Water Anthropology Project.

Paragraphs 21. 22. and 23.

ANNOTATION 9. Since its 4th Phase (1989-1994), IHP has been directly pursuing the goal of sustainability and sustainable water management through a comprehensive multidisciplinary approach, with elements from the social sciences, culture and risk management. This is also evident from the title of the current phase of IHP: “Water Interactions: Systems at Risk and Social Challenges”.¹⁵ There are several cases of successful intersectoral collaboration between IHP and the Social and Human Sciences Sector, which were omitted in the Review Report. For instance, there are joint research activities on the role of the civil society in the resolution of water conflicts¹⁶ and a long-standing strong co-operation between IHP and COMEST (World Commission on the Ethics of Scientific Knowledge and Technology) on water and ethics¹⁷ As an example, this collaboration has resulted, for the first time, in a new groundbreaking series dedicated to water and ethics, with the following titles:

- Water and Ethics: Overview
- Water and Ethics: A Historical Perspective
- Water and Ethics: Ethics and Water Resources Conflicts
- Water and Ethics: Ethics of Water-related Disasters
- Water and Ethics: Financial Perspectives
- Water and Ethics: Human Health and Sanitation
- Water and Ethics: Institutional Issues
- Water and Ethics: Use of Groundwater
- Water and Ethics: Water and Ecology
- Water and Ethics: Water in Agriculture
- Water and Ethics: Water in Civil Society
- Water and Ethics: Women and Water - An Ethical Issue

The statement, therefore, that the two sectors “are unsuccessful in building on their combined strengths to address scientific questions of societal and economic importance” in the case of water-related issues does not match the test of reality. Hence, the conclusion derived is inappropriate for IHP and the other UNESCO water programmes.

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- WaterNet, CCR, ISRI, Catalic, UNESCO-IHE Delft, UZ, Conflict Prevention and Cooperation in International Water Resources-Hand Outs, UNESCO-IHP, 84 p.
 - WaterNet, CCR, ISRI, Catalic, UNESCO-IHE Delft, UZ, Advanced Mediation Skills Course Book, UNESCO-IHP, 83 p.
 - Janos Bogardi and Saskia Castelein (eds.), Selected Papers of the International Conference from Conflict to Cooperation in International Water Resources Management: Challenges and Opportunities, UNESCO-IHE Delft, The Netherlands, 20-22 November 2002, UNESCO-IHP, 600 p.

¹⁵ IHP/IC-XV/Inf.29.

¹⁶ See publication “Société civile et résolution des conflits hydriques” (TDH, PCCP series, number 9; ISBN SC-2003/WS/55).

¹⁷ For instance, see document “Review of the Report of the COMEST Working Group on Water Ethics” (IHP/IC-XIV/Inf.6); and the publications *Best Ethical Practices in Water Use. World Commission on the Ethics of Scientific Knowledge and Technology* (Paris: COMEST/UNESCO, 2004), the whole COMEST/IHP series on Water and Ethics (Paris, 2004, with subsequent translated versions). References to the good cooperation between SHS and SC/HYD can also be found in several internal documents (e.g. SC/AP/PS-BP/04/001 §12).

Paragraph 24. ([...] each one has its respective decision-making body and processes and its respective administrations and in general operates too autonomously in its scientific fields [...])

ANNOTATION 10. This claim is misleading. The ISPs devoted to sustainable development do not operate in independent silos. On one hand, all UNESCO environment and sustainable development-related science programmes are represented in the main decision-making body of IHP, where cooperation between ISPs has been systematically reported.¹⁸ On the other hand, the decision-making bodies of ISPs are composed by government nominated experts and scientists with multiple connections and diverse backgrounds. To refine this point it should be noted that nearly 30 per cent of the members of the IHP Intergovernmental Council come from academia, 20 per cent from government and 50 per cent from government-related research facilities.¹⁹ In addition, IHP has very close working relations with external scientific organizations, such as the International Association of Hydrological Sciences of IUGG/ICSU, the International Association of Hydrologists, the International Association for Hydraulic Research of ICSU, the IGBP of ICSU among many others.²⁰ These external organizations are also regularly represented in the main decision-making body of IHP.²¹ Likewise, these NGOs are actively participating in shaping the various phases of IHP and play a major role in implementing various IHP activities.

Paragraph 24. (“[...] There is considerable overlap between the ISPs, with other United Nations bodies, and with outside scientific organizations. In the case of the International Hydrological Programme (IHP) [...]”)

ANNOTATION 11. The many cases of multidisciplinary, intra- and inter-sectoral collaboration within UNESCO²², and interagency collaboration with other UN-bodies²³ – which fulfil the decisions of the Governing Bodies of UNESCO²⁴ that are fully compatible with Recommendation 3 of the Review Report – should not be confused with overlapping. The example provided in this paragraph, which refers to IHP, could be subject to major misinterpretation, as it is taken out of context. As water is essential to life, to a wide range of human activities and to sustainable development, cutting across all the MDGs, it is indeed true that there are more than 20 bodies in the UN system dealing with water issues, with various mandates and varying involvement. However, as it is formulated, the statement in paragraph 24 of the report is misleading. For instance, using a similar approach, it could be stated for example that there are more than 20 UN bodies focusing on poverty eradication and sustainable development.

However, in the case of water, each of these bodies focuses on a particular field and there is no duplication between IHP and the water-related programmes of other UN bodies. UNESCO-IHP is the only intergovernmental scientific and education programme within the UN system exclusively dedicated to freshwater and its interactions. Other agencies cover specific water aspects that are related with their fields of operation, from irrigation and food production (FAO), to water supply and

¹⁸ For example, see IHP/IC-XIV/3 p. 21, IHP/IC-XVI/3 §66, IHP/IC-XVII/3 §39.

¹⁹ See Annex II of IHP/IC-XIV/3, Annex II of IHP/IC-XV/3, Annex II of IHP/IC-XVI/3.

²⁰ See IHP/Statutes/1996, Article VIII, §3; and practical examples from IHP/IC-XV/3 pp. 16-18 (collaboration of IHP with the International Association of Hydrological Sciences, the International Association of Hydrogeologists, the International Council on Science, the Sahara and Sahel Observatory, the World Water Council, and the International Water Association), IHP/IC-XVI/3 pp. 19-20 (collaboration of IHP with the International Association of Hydrological Sciences, the International Association of Hydrogeologists, the International Hydropower Association, the Global Water System Project), and IHP/IC-XVII/3 p. 18 (collaboration of IHP with the International Association of Hydrological Sciences, the International Association of Hydrogeologists, the International Consortium on Landslides, the Global Water System Project)

²¹ See footnote 19.

²² See ANNOTATIONS 8 and 9 on this document.

²³ A good example of successful interagency cooperation is *The United Nations World Water Development Report (WWDR)*, now entering its third phase. The report is coordinated by the UNESCO-based Secretariat of the World Water Assessment Programme, one of the pillars of the UNESCO water programmes, which has an extremely close relationship with IHP. About 20 UN-bodies collaborated in the 2nd WWDR, covering different water-related issues, from governance, human well-being, and natural systems (see: *Water: a Shared Responsibility - The United Nations World Water Development Report 2*. UNESCO and Berghahn Books, 2006).

²⁴ For instance, see 166 EX/Decision 3.6.1, calling for a joint water education programme by the Education and the Natural Sciences Sectors.

sanitation among different target groups and using different approaches at different geographic levels (WHO, UNEP, UNDP, UNICEF, UNHCR, UN Regional Commissions), international water agreements (GEF, UN Regional Commissions and UNEP), public health impacts and waterborne diseases (WHO, UN Regional Commissions), industrial uses (UNIDO), urban water demand management (UN-HABITAT) isotope methodologies for improved water and geothermal resource management (IAEA), assessment, dams, integrated management plans, and rainwater harvesting (UNEP). The various regional UN Economic Commissions, notably UNESCAP, UNECE, UNECLAC, UNECA, UNESCWA, are involved in regional water issues, covering a wide range of problems from flooding to water supply. However, none of these UN entities has a science and education programme devoted entirely to freshwater. Moreover, the scope, resources, aims, mode of operation and level of implementation of these agencies differ substantially from IHP and are complementary to its research programme.

The only other UN agency highlighting scientific research on freshwater is WMO, but its scope is centred on the atmospheric part of the hydrological cycle, mostly via the World Climate Programme and, up to a certain extent, through the Operational Hydrology Programme, whose activities are closely coordinated with IHP. The water-related programmes of UNESCO and WMO were carefully examined by a special joint Task Force set up in the early 1990s in order to identify potential duplications.²⁵ The resulting Saline Royale Report, submitted to the governing organs of both organizations, clearly spelled out that there is no duplication between the two water programmes. The Joint UNESCO-WMO Liaison Committee on Hydrological Activities, which has regular meetings to align and mutually reinforce the programmes, also makes sure that there is no duplication in current and planned activities.²⁶ IHP has a well functioning cooperative arrangement with the WMO World Climate Programme – Water, whose Steering Committee includes IHP since its inception.²⁷ In addition, at the country level, it should be pointed out that some IHP National Committees are hosted by the same institution that hosts the WMO Hydrological Advisers, further guaranteeing close coordination at the country level.

It is also not really correct to say that coordination is not sufficient across the UN System in water affairs.²⁸ Coordination is done through UN-Water (formerly the ACC Sub-Committee on Water Resources), a coordinating mechanism that functions similarly to UN-Oceans or UN-Energy under the authority of the Chief Executives Board (CEB) consisting of heads of UN Agencies. These coordinating bodies, which do not have an independent legal personality, effectively coordinate the efforts of the many UN entities involved, in one way or another, in water, ocean and energy matters, respectively.

In addition, to avoid duplication and improve coordination with UNESCO and the IHP, other UN agencies are consulted during the design of each phase of IHP. For IHP-VII, an initially proposed theme was dropped during the drafting process to avoid duplication with the work of other agencies²⁹ and the chairman of the Task Force in charge of drafting the IHP-VII strategic plan was himself a UNEP staff seconded to UNESCO as a liaison-officer. Moreover, the external scientific organisations that focus on global freshwater issues are not intergovernmental programmes but non-governmental organizations. In some cases, such organizations rather than having their own programmes, organise activities as direct contributions to IHP.³⁰

It is to be noted that the UN World Water Assessment Programme (UN WWAP), initiated, hosted, financed, staffed and led by UNESCO, is the only UN programme that brings together all the UN agencies dealing with water in a coordinated joint operational programme. While UNESCO is the executing agency, the Steering Committee of WWAP is provided by UN-Water. Upon the initiative

²⁵ See the Report of the Ad Hoc Working Group Meeting held at the Saline Royale of Arc-et-Senans (IHP-BUR.XXI-13) on interagency cooperation with WMO.

²⁶ See “Co-operation of WMO with the IHP of UNESCO” (e.g. IHP/IC-XVI/Inf.16 and IHP/IC-XVII/Inf.11) and IHP-Council Reports (e.g. IHP/IC-XVI/3 p. 17 “Cooperation with WMO in the field of hydrology and water resources”).

²⁷ For example, see WMO/TD-No. 1048, WMO/TD-No. 1145.

²⁸ See “Report on the Status and Meetings of UN-Water” (IHP/IC-XVI/3 §107), and “Co-operation with the United Nations System on Freshwater Issues” (e.g. IHP/IC-XVI/Inf.17).

²⁹ Compare IHP/IC-XVI/9 with IHP/IC-XVII/Inf. 9, where theme IV, initially proposed as “Water Quality, Human Health and Food Security” was subsequently changed to “Water and Life-Support Systems”.

³⁰ This is the case, for example, of the International Association of Hydrological Sciences, an ICSU affiliated scientific NGO.

of the IHP Intergovernmental Council, a new interagency programme on floods (International Flood Initiative, IFI) was launched in 2005 with the participation of UNESCO, WMO, UNU, and UN-ISDR. On behalf of the NGO community, IAHS and IIASA are also partners in IFI. Based on these considerations, the first three sentences of paragraph 24 of the Review Report are out of context, based on a faulty assessment, and are therefore misleading.

Paragraph 24. (“[...] *The IHP alone accounts for about 40% of the regular budget for activities for the sector in the current biennium.* [...]”)

ANNOTATION 12. This statement is misleading and seems to be based on misinterpretation of the 33 C/5. In the case of Major Programme II, and with the exception of IOC, the 33 C/5 does not present the allocation of the regular budget per ISPs or Divisions of UNESCO.³¹ While the 38.77% of the Regular Programme Budget is shown as assigned to the freshwater Subprogramme II.1.1, due to inter-ISP cooperation, a substantial part of this budget (nearly 10%, i.e. approximately \$850,000) is managed by other ISP (MAB in the Joint MLA IHP/MAB). Only 35.05% of the regular budget allocated for activities is directly under IHP, 50% of which is decentralised.³² Moreover, the proportion of the budget allocated for water is significantly lower when the total regular budget is considered (i.e. programme activities plus staff and indirect programme costs). In this analysis, the Division of Water Sciences manages approximately 25% of the SC regular budget. Thus, while the water Subprogramme has a larger proportion of the regular budget for activities, it has a relatively smaller proportion (14%) for its staff. In any case, the regular budget of IHP is substantially lower than the 40% quoted.

Moreover, the regular budget allocation for the activities of the water MLA in the current draft 34 C/5 is already foreseen to decrease substantially to 30.72% of the total regular budget allocation for the activities of the Major Programme II.³³ It should also be stressed that the percentage of the regular budget allocation to the water programmes further decreases substantially to about 23% when the total (programme plus staff and indirect programme costs) of the regular budget is considered.

It should be also observed that the funds allocation is in full harmony with the relevant decisions of the 31st, 32nd, and 33rd sessions of the General Conference of UNESCO that decided to make “Water and Associated Ecosystems” the principal priority of the Natural Sciences Sector.³⁴ For the budget allocation on the 33 C/5 and the draft 34 C/5 see also ANNOTATION 41.

At this point, it should be recalled that the 35% of the Natural Sciences Sector budget for programme execution corresponding to IHP is being implemented by human resources representing less than 14% of the Natural Sciences Sector budget.³⁵ This disproportionate ratio of 1 to 2.5 needs rectification by increasing the staff of IHP, as requested by the IHP Bureau and Intergovernmental Council on several occasions.

Paragraph 25.

ANNOTATION 13. The administration of ISPs, except that of IOC, is already common at the level of the Sectors’ Executive Office (SC/EO in the case of the Natural Sciences Sector). To further merge the administration and the governance of ISPs will cause loss of expertise, being therefore very likely to compromise their efficiency and leading to extra costs. For synergies with other ISPs of the Natural Sciences Sector see ANNOTATIONS 10 and 11; for synergies with ISPs of the Social and Human Sciences Sector see ANNOTATION 9. Moreover, “to scrutinize how well the programmes collectively relate to UNESCO’s mandate and its role” is generally considered to be the task of the Executive Board and the General Conference.

³¹ 33 C/5, p. 79.

³² Near 40% of the budget allocated to water activities is implemented by Field Offices, via the a network of 11 Regional Hydrologists, and further 10% is decentralised during the implementation of the biennium work plan.

³³ Draft 34 C/5, volume 2, p. 66.

³⁴ See 31 C/5, 32 C/5, and 33 C/5.

³⁵ 14% of the Natural Sciences Sector overall budget roughly corresponds to 23% of the Natural Sciences Sector budget allocated to staff.

Paragraph 26.

ANNOTATION 14. This observation does not apply to IHP and should be more specific. In any case, IHP has no overlap in its research portfolio with the rest of the ISPs. Therefore, there seems to be no reason to re-examine the mission of IHP that, given the looming water crises, is more relevant today than at any time in the past. IHP, through the establishment of a worldwide network of category I and II institutes and centres, has adapted its approach to the scientific advancements by expanding across various disciplines.³⁶ IHP projects are regularly re-examined during the preparation of each phase and have strong sunset conditions.³⁷ Approximately half of the activities developed by IHP are terminated (sunset closed) at the end of a six year C/4 period, coinciding with the end of an IHP-phase.³⁸ In addition, the track record of IHP in raising extrabudgetary funds is considerably high: for every \$1 of the Regular Budget allocated to IHP activities there is nearly \$9 raised from extra-budgetary sources for UNESCO's water related activities.³⁹

Paragraph 27.

ANNOTATION 15. This part of project management and administration is done on a regular basis by the IHP Intergovernmental Council, in a fully transparent manner and in adherence to the relevant UNESCO procedures, across all management and budget activities. Proposed fund and staff allocation is examined by the Finance Committee of the IHP Intergovernmental Council and is submitted to the relevant channels.

Paragraph 28. (“Built-in programme monitoring and evaluation [...]”)

ANNOTATION 16. The implementation of IHP is regularly monitored by the governing boards of IHP, as built-in programme monitoring, and periodical comprehensive evaluations are performed at the end of each phase.⁴⁰ The subsequent phases of WWAP have also been subject to external evaluations. The UNESCO-IHE Institute for Water Education, in accordance with its Statutes, is currently undergoing an external evaluation.

Paragraph 29. (“UNESCO needs a dynamic decentralization [...]”)

ANNOTATION 17. Approximately 50% of the regular budget allocated to water-related initiatives is decentralised to the UNESCO network, including the regional hydrologists (see ANNOTATION 12). Regarding the water-related Category 1 and 2 UNESCO institutes and centres, a strategy was recently developed to improve their networking and coordination.⁴¹

Paragraphs 30. and 31.

ANNOTATION 18. The IHP Intergovernmental Council has continuously supported the implementation of an effective communication strategy to disseminate the work of IHP through all relevant audiences and using a variety of channels. Such support is expressed in several IHP Council resolutions.⁴² The implementation of these resolutions includes the development of a corporate image for all of UNESCO's water activities, the development of an internet-based Water Portal and an IHP website, newsletters, and printed publications. These initiatives have

³⁶ For instance, this is the case of The International Centre for Water Hazard and Risk Management (ICCHARM) and the HELP Centre on Water Law and Policy.

³⁷ See the documents mentioned on footnote 11.

³⁸ For the latest phases of IHP, compare the documents IHP/IC-XV/Inf.29 and IHP/Bur-XL/11. See also examples of discontinued activities on the handout provided by the Deputy Director-General during the 3rd Information Meeting with Permanent Delegations on the “Overall Review of UNESCO's Science Programmes”, April 4, UNESCO Headquarters, Paris.

³⁹ See the column on extra-budgetary resources presented in the 33C/5 p. 79, including UNESCO-IHE Institute for Water Education (established following recommendation IHP-IC XIV-10), the agreement of the Director-General with the Italian Government concerning the Secretariat of World Water Assessment Programme (ODG 2006 01243, 09/03/2006) and ANNOTATION 12.

⁴⁰ See documents SC-96/WS/23 (Final Report of the External Evaluation Committee [for IHP-IV]) and IHP/IC-XVI/12 (External Evaluation of IHP-V). See also document IHP/Bur-XXX1/Inf.20 (Report on the Internal and External Evaluation Plans of IHP: Principles to be Followed)

⁴¹ IHP/Bur-XL/8.

⁴² IHP-IC Resolution XI-5 (1995), IHP-IC Resolution XII-1 (1996), IHP-IC Resolution XIII-1 (1998), IHP-IC Resolution XIV-2 (2000), IHP-IC Resolution XV-6 (2002)

successfully contributed to increase the visibility of IHP. For instance, in 2006 there were approximately 3.500.000 visits to the UNESCO Water Portal and over 16.000 newsletter subscribers. With this the UNESCO Water Portal has been the most visited website of the Science Sector. In addition, IHP is strongly committed to providing access to water-related knowledge for all, particularly within the framework of the United Nations Decade of Education for Sustainable Development and in close cooperation with other Sectors of UNESCO. Such commitment is expressed in a variety of areas, from community and stakeholder education, to efforts to build the understanding of the importance of world water issues among journalists, editors and the producers of radio, television, film, multimedia and other media resources as well as their capacities to communicate water issues effectively.⁴³

Paragraph 32.

ANNOTATION 19. IHP has established active partnerships and collaborative projects with many of these organizations, including OAS⁴⁴, ISESCO, ACSAD, ALECSO,⁴⁵ ICSU⁴⁶, and numerous water-related scientific NGOs.⁴⁷ IHP's closest partner in the NGO community is IAHS of ICSU. This relationship is as old as IHP itself, as IAHS was instrumental in launching IHP's predecessor, the International Hydrological Decade (IHD) in 1964. Ever since a symbiotic relationship has evolved and IAHS is taking part, inter alia, in the design of various IHP phases. Also, IAHS regularly attends the coordinating sessions of the IHP Intergovernmental Council and Bureau.

Paragraph 32.

ANNOTATION 20 on footnote 7. The statement that Human Development Report (HDR) "did not mention UNESCO's science programmes nor its associated ISPs a single time" is incorrect. Examples of references to IHP initiatives and to WWAP include:

- UNESCO is cited among the contributors to the Report (p. VIII);
- In the Advisory Panel, Mr Gordon Young, Coordinator of WWAP and UNESCO staff member at the time, is listed (p. VIII);
- The World Water Development Reports (WWDRs) that WWAP produces are mentioned several times across the Report (p. 234, notes 5, 48, 53 and 80 for Ch 4; p. 236, p. 239, p. 259); it should be noted that UNDP fully knew that the WWDR 2 was coming out before their report; further, UNDP's HDR Senior Policy Advisor visited the IHP Secretariat in the preparatory phases of the HDR to compare notes in the planning process.
- Mr Shammy Puri, Chair of the IHP-VII Task Force, is cited twice with reference to UNESCO IHP's Internationally Shared Aquifer Resource Management (ISARM) programme (p. 252).

It is a valid point, however, why the UNDP HDR was devoted to water when there is already a particular world water report series produced by 24 agencies of the UN system, initiated by a UN-CSD decision, which UNDP is a part to. In addition, the number of references to UNESCO-IHP – or to anything else – in the HDR is meaningless. For instance, the HDR does not quote the water journal with the highest ISI impact factor (*Water Research*) and it cites only the top-ranking scientific journals *Science* and *Nature* five times out of nearly one thousand cited publications. This does not imply that these journals are of minor relevance or need to improve their outreach.

⁴³ See the Work Plan for the Thematic Programme 8 of the UN-DESD on Water Education for Sustainable Development (IHP/Bur-XL/14)

⁴⁴ See the UNESCO/OAS Memorandum of Understanding on Cooperation in Integrated Water Resources Management in the Americas, signed in the UNESCO Headquarters, Paris, 23 September 2004. See also IHP/IC-XV/3 p. 17, IHP/IC-XVI/3 p. 20.

⁴⁵ See IHP/IC-XVI/3 p. 20.

⁴⁶ See footnote 49.

⁴⁷ See footnote 20.

Paragraph 42.

ANNOTATION 21. The water science programmes are already addressing these recommendations, which should be interpreted in the light of the creation of the UNESCO-IHE Institute for Water Education and the network of the 12 Category II water centres (with 8 proposed additional centres under consideration), whose functions are primary capacity building. In this context, it is to be highlighted that 99% of UNESCO-IHE alumni are from developing countries. It is also to be stressed that 99% of the participants return to their countries of origin and 85% are still working on water-resources 25 years after graduation demonstrating the long-lasting impact and the efficiency of water-related capacity building by UNESCO.

Paragraph 43. (“Programmes should incorporate [...]” and “UNESCO should further emphasize [...]”)

ANNOTATION 22. IHP took these elements into consideration in the strategic plan for its next phase⁴⁸ and it is actively collaborating with various organizations of ICSU, which is also an observer of the IHP Intergovernmental Council.⁴⁹ In addition, the direct contribution of UNESCO to cutting-edge scientific water-related research and the emphasis on new scientific paradigms is being done via IHP, UNESCO-IHE Institute for Water Education, WWAP and the network of Centres. IHP has numerous publications on groundbreaking water sciences, including a reference International Hydrology Series, published by Cambridge University Press for UNESCO.⁵⁰ UNESCO-IHE alone is responsible for more than 100 peer-reviewed scientific papers and more than 250 research theses per year. WWAP is providing the most up-to-date and comprehensive assessment of the UN system focusing on water.

Paragraph 44. (“UNESCO should assign [...]” and “UNESCO’s programmes and projects should [...]”)

ANNOTATION 23. It makes perfect sense that projects should be developed from a problem-based perspective, applying interdisciplinarity and cross-sectoral approaches as needed, not making use of intersectorality *per se* (see ANNOTATION 7). In this context, the recommendation starting with “UNESCO should assign [...]” (first bullet-point of paragraph 44) should be entirely interpreted in the context of the recommendation starting with “UNESCO’s programmes and projects should [...]” (second bullet-point of paragraph 44), i.e. promoting intersectorality and interdisciplinarity as a problem-solving tool rather than an end in itself. It should be also noted that this is the current practice in IHP and therefore this recommendation does not have implications for the Programme.

⁴⁸ See footnote 11.

⁴⁹ See for instance IHP/IC-XV/3 §108 and IHP/IC-XVII/3 §40.

⁵⁰ Publications include:

- Hydrology and Water Management in the Humid Tropics by M. Bonell, M.M. Hufschmidt and J.S. Gladwell (Eds.)
- New Uncertainty Concepts in Hydrology and Water Resources by Z.W. Kundzewicz (Ed.)
- Space and Time Scale Variability and Interdependencies in Hydrological Processes by R.A. Feddes (Ed.)
- Groundwater/Surface Water Ecotones: Biological and Hydrological Interactions and Management Options by J. Gibert, J. Mathieu and F. Fournier (Eds.)
- Subsurface Flow and Transport: A Stochastic Approach by G. Dagan and S.P. Neuman (Eds.)
- Impacts of Climate Change and Climate Variability on Hydrological Environments by J.C. van Dam (Ed.)
- Sustainability Criteria for Water Resources Systems by D.P. Loucks and J.S. Gladwell (Eds.)
- Tropical Glaciers By G. Kaiser and H. Osmaston
- Risk Reliability, Uncertainty and Robustness of Water Resources Systems by J. Bogardi and Z. W. Kundzewicz (Eds.)
- Climate Changes during the Holocene and their Impact on Hydrological Systems by Arie S. Issar
- World Water Resources at the Beginning of the 21st Century by I.A. Shiklomanov, John C. Rodda
- Forests, Water and People in the Humid tropics: Past, present and Future hydrological Research for integrated Land and Water Management by M. Bonell and L.A. Bruijnzeel (eds.)
- K.D.W. Nandalal and J.J. Bogardi – Dynamic Programming based Operation of Reservoirs : Applicability and Limits
- Inter-Basin Water Transfer Case Studies from Australia, United States, Canada and China by Fereidoun Ghassemi and Ian White.
- Hydrological Modelling in Arid and Semi-Arid Areas by H.S. Wheeler, S. Sorooshian and K.D. Sharma.

Paragraph 44. (“All the science programmes [...]”)

ANNOTATION 24: See ANNOTATION 8.

Paragraph 44. (“The ethical dimension [...]”)

ANNOTATION 25. IHP fully concurs with this observation. The ethical dimension was already incorporated and highlighted in IHP-VI (Focal Area 4.1) and is strengthened in the draft plan for IHP-VII (Focal Area 2.3).⁵¹ There is also strong collaboration with the Social and Human Sciences Sector on water ethics.⁵² See also ANNOTATION 9.

Paragraph 46. (“UNESCO should increase efforts to assist [...]”)

ANNOTATION 26. UNESCO-IHE, the only international postgraduate institute in water education, is extremely active in expanding water education throughout the world, especially in developing countries and has already developed e-learning materials and courses. It should also be noted that UNESCO-IHE is the only UN entity that provides accredited MSc and PhD degrees, while the United Nations University does not have those capacities. The Natural Sciences Sector and the Education Sector are also collaborating in water education at all levels as part of United Nations Decade of Education for Sustainable Development. Coordination in water issues with the UNU is done through the governing bodies of IHP⁵³ and on a regular basis through the interagency UN-Water. In addition, UNU and IHP work closely together in the International Flood Initiative. Close bilateral coordination is in place with the UNU Institute on Human and Environmental Security.

Paragraph 46. (“UNESCO should play [...]”)

ANNOTATION 27. UNESCO has several decades of experience on water education, a theme that has been central to many phases of IHP and is at the core of UNESCO-IHE.⁵⁴ IHP is currently the leader for the Thematic Programme 8 on Education for Sustainable Water Development of the United Nations Decade of Education for Sustainable Development. The Work Plan for this Thematic Programme, developed under the leadership of IHP in close cooperation with the Education Sector, UNESCO-IHE and UNESCO-UNEVOC and in collaboration with the Communication and Information Sector, encompasses all forms of education, making use of different communication channels, including those proposed in the Review Report.⁵⁵

Paragraph 47. (“The ISPs should be reoriented [...]”)

ANNOTATION 28. The strategic plan for IHP-VII, like its predecessors, is entirely problem based and strongly highlights:⁵⁶

- peace (see Box. 8 on “PCCP: sharing water resources peacefully”),
- poverty reduction (focal area 4.1 on “Protecting water quality for sustainable livelihoods and poverty alleviation”),
- sustainable development (all over IHP-VII, but in particular in Theme 2 on “Strengthening Water Governance for Sustainability”, Theme 3 on “Ecohydrology for Sustainability”, focal area 4.3 on “Achieving sustainable urban water management”, focal area 4.4 on “Achieving sustainable rural water management” and Theme 5 on “Water Education for Sustainable Development”).

Paragraph 47. (“The ISPs should be evaluated [...]”)

ANNOTATION 29. Evaluation is done systematically and regularly in the case of IHP. A comprehensive external evaluation is undertaken after the completion of each phase.⁵⁷ Also see ANNOTATION 28.

⁵¹ See IHP/IC-XV/3 and IHP/IC-XVII/Inf. 9.

⁵² See ANNOTATION 9.

⁵³ See for instance IHP/IC-XVII/3 §100 and §101.

⁵⁴ For the long experience of water education within UNESCO, see for instance the document by W.H. Gilbrich *25 Years of UNESCO-s Programme in Hydrological Education Under IHD/IHP*. Paris: UNESCO IHP, 1991.

⁵⁵ See IHP/Bur-XL/14

⁵⁶ See IHP/IC-XVII/Inf. 9 and IHP/Bur-XL/11.

Paragraph 47. (“Better coordination [...]”)

ANNOTATION 30. See ANNOTATION 11.

Paragraph 47. (“Given the open-ended nature [...]”)

ANNOTATION 31. See ANNOTATION 14.

Paragraph 47. (“The various [...]”)

ANNOTATION 32. This would be counterproductive and would minimize the opportunities of developing countries to shape and benefit from IHP. It is also very unlikely that a better budgetary efficiency would be achieved. See ANNOTATION 13.

Paragraph 47. (“Better cooperation [...]”)

ANNOTATION 33. The governing boards of IHP are continuously looking at this issue.⁵⁸ However, this issue must be interpreted in the context that cooperation of IHP National Committees and UNESCO National Commissions in IHP is – as it should be – voluntary. It can be noted that in several occasions such cooperation has been hindered by the limited resources available.

Paragraph 48. (“UNESCO should make better use [...]”)

ANNOTATION 34. IHP has developed a strategy to foster coordination and collaboration among the Category 1 and Category 2 water-related institute and centres.⁵⁹

Paragraph 48. (“Outreach and communication strategies [...]”)

ANNOTATION 35. See ANNOTATION 18.

Paragraph 48. (“UNESCO should strengthen [...]”)

ANNOTATION 36. It should be noted that the UNESCO-based WWAP Secretariat coordinates the joint undertaking of 24 UN agencies for the preparation of the World Water Development Report. In addition, IHP has established strong partnerships and joint programmes with several UN agencies (including WMO, UNU, UNEP, IAEA)⁶⁰ and is running joint programmes, such as the International Flood Initiative (with WMO UN-ISDR and UNU) and the Joint International Isotope Hydrology Programme (JIHP) with IAEA. There are also a large number of water-related activities that are implemented in close collaboration with other UN institutions.⁶¹

Paragraph 49. (“Screening procedures [...]”)

ANNOTATION 37. This is done by the IHP Intergovernmental Council and Bureau.⁶²

Paragraph 49. (“UNESCO to Initiate [...]”)

ANNOTATION 38. It is highly inefficient and ineffective for UNESCO to just initiate programmes and exit. This recommendation could more usefully state “UNESCO to initiate programmes in key areas where UNESCO has the capacity to take the lead”, or “UNESCO should maintain the lead in the key areas where it initiated programmes”.

Paragraph 49. (“External and independent [...]”)

ANNOTATION 39. The selection of programmes and centres is done by a successive comprehensive assessments and analyses by the IHP Bureau, the IHP Intergovernmental Council, the UNESCO Executive Board, and ultimately by the UNESCO General Conference, with the close support of the UNESCO Secretariat. These entities are fully capable of performing such selection in a more comprehensive and efficient manner than any “external and independent” review would

⁵⁷ For the latest phase of IHP see the document External Evaluation of IHP-V (1996-2001) – IHP/IC-XVII/12.

⁵⁸ See, for instance, documents IHP/IC-XIV/9, IHP/IC-XV/Inf.6, and IHP/IC-XVII/9 on the governance of IHP.

⁵⁹ IHP/Bur-XL/8. See also ANNOTATION 17.

⁶⁰ See IHP/IC-XVII/3 pp. 16-17.

⁶¹ See ANNOTATION 36.

⁶² See for instance ANNOTATION 16.

be in principle. In some very specific circumstances, connected with the evaluation of programmes and centres, “external and independent” reviews may be useful, but the funds needed for such reviews must be also taken into consideration.

Paragraph 50.

ANNOTATION 40. Regular programme assessments are carried out by the Regional IHP Meetings, the IHP National Committees, the IHP Centres, the IHP Intergovernmental Council and by the IHP Bureau, that continuously and regularly determine which areas should be continued, developed further, or phased out. This is embodied in the unique mechanism of formulating successive 6-year strategic plans for IHP Phases, which show a largely renewed programme, focusing on the most pertinent and urgent issues, and abandoning areas that have become less relevant. It should be noted that no other programme of UNESCO is planned through such a comprehensive consultation process, also involving IGOs and NGOs, in order to arrive at an international consensus with respect to the identification of a minimum number of highly-relevant projects of high-interest to a maximum number of Member States.

Paragraph 52.

ANNOTATION 41. This sentence is misleading as it confuses budget allocation with imbalance. During the past biennia and following the recommendations of various scientific bodies and comprehensive consultations, overviewed earlier, the General Conference, based on the recognized and expressed needs of Member States, has decided to prioritize designated strategic topics to maximise the impact of the Organization limited funds.⁶³ The allocation is not done in a random way, resulting in imbalances, but indeed reflects the needs of Member States as expressed by them in the Governing Bodies of UNESCO and during a wide ranging regional consultation process. With regard to the next biennium and the 34 C/5, it should be noted and strongly highlighted that the National and Regional consultations performed by the Director-General among Member States clearly lead to the conclusion that the vast majority of Member States who presented their views support that water issues should continue to be a priority for UNESCO. The resolution of the General Conference that launched the overall review clearly states that the review should be conducted “in light of [...] country and regional priorities”.⁶⁴ Such priorities, presented by the Member States during the consultations of the Director-General, were ignored by the Review Committee. See also the comment of the Director-General on paragraph 69 of the Review Report.

Paragraph 52. (“Water-related activities [...]” and “UNESCO should take [...]”)

ANNOTATION 42. The recommendations presented in these two bullet-points are fully in line with the plans developed over the past three years for IHP-VII. In fact, the Strategic Plan for IHP-VII includes a Theme on Strengthening Water Governance for Sustainability, and focal areas on governance strategies that enhance affordability, conflict prevention and management, energy, ecosystems, water management, and adaptation to climate change, among other issues.⁶⁵ At the same time, policy-relevant cutting-edge hydrological science topics, such as hydrological impacts of climate change, freshwater biodiversity, hydropower just to mention but a few, will also be addressed during IHP-VII. It is generally recognised that sound science must be the basis for the other aspects of water management. One needs to recognize that this is at the core of the great relative advantage of UNESCO-IHP. For capacity-building see ANNOTATION 21.

Paragraph 54. (“Organize and convene on [...]”)

ANNOTATION 43. Due to highly diverse government structures among different Member States, it should be noted that such forums should include a wider range of ministers dealing with science and scientific issues, particularly in the context of scientific applications to sustainable development.

⁶³ 33 C/5, including the introduction on p. vii.

⁶⁴ 33 C/Resolution 2

⁶⁵ See IHP/IC-XVII/Inf. 9 and IHP/Bur-XL/11.

For a similar process, it is to be pointed out that IHP is chairing the political process of the 5th World Water Forum, potentially leading to a World Water Summit.

Paragraph 54. (“Monitor science [...]”)

ANNOTATION 44. WWAP is the most comprehensive freshwater assessment programme of the UN-system. Although UIS has strong focus on educational statistics, WWAP has made use of UIS materials for the World Water Development Report.⁶⁶

Paragraph 55.

ANNOTATION 45. It is unclear why an overarching Advisory Committee is required. It is also unclear how such an unelected body can be overarching over intergovernmental bodies, subsidiary of the General Conference, such as the IHP Intergovernmental Council. It is to be noted that during the XII session of the IHP Intergovernmental Council it was proposed to link the governing bodies of IHP with the Scientific Committee on Water Research (SCOWAR) of the International Council of Scientific Unions (ICSU). This short-lived Scientific Committee on Water Research had the objective of “identifying gaps in the existing scientific programmes and filling these gaps by coordinating existing programmes in hydrology”.⁶⁷ However, the Council members promptly rejected this proposal, arguing that they already had access to the scientific knowledge they need.

Paragraph 56. (“Monitoring implementation [...]”)

ANNOTATION 46. This would be in principle the prerogative of the Executive Board and General Conference.

Paragraph 56. (“Providing advice [...]”)

ANNOTATION 47. IHP already has access to all scientific advice it needs. It is highly unclear how such scientific committee will enhance intersectoral cooperation, since its domain would be mostly on Science in general. Such a committee is very likely to increase bureaucracy and to worsen efficiency and effectiveness. Therefore, it is considered that such a committee is not needed for increasing UNESCO’s response capacities in the area of water.

Paragraph 56. (“Ensuring interdisciplinarity [...]”)

ANNOTATION 48. Interdisciplinarity in IHP has been ensured by the IHP Intergovernmental Council since its IVth Phase, when the Programme departed from a purely monodisciplinary scientific approach to a more holistic problem-based focus.⁶⁸ It is unclear how an in-house UNESCO-based committee will be able to provide strategic coordination with other United Nations activities. Coordination for water issues is currently ensured by some multi-agency bodies, including UN-Water that counts with representatives from 24 agencies.⁶⁹ See also ANNOTATIONS 7, 8, and 11.

⁶⁶ See *The United Nations World Water Development Report* (UNESCO Publishing and Berghahn Books: 2003), p. 366.

⁶⁷ IHP/IC-XII/3 item 10.

⁶⁸ See Detailed Plan for the fourth phase of the IHP (1990-1995) as approved by the IHP Council at its Ninth Session (Paris, 19-24 March 1990), including the Objectives of the IHP on p. 2.

⁶⁹ See ANNOTATION 11.

ANNEX IV

DECLARATION OF WATER EXPERTS FROM THE ARAB COUNTRIES

(original document)


Steering Committee Meetings of the Arab Networks on Groundwater
Protection and Wadi Hydrology and Expert Group Meeting on Integrated
Water Resources Management in the Arab region
Bahrain, 22- 25 March 2007

EXPERTS DECLARATION

Addressed to: The Director General, UNESCO
Arab Delegations to UNESCO
Arab National Commissions to UNESCO

We the water experts of the Arab countries gathered in Bahrain on the period 22-25 March 2007 within the framework of the above mentioned experts meetings organized by the regional Bureau for Science in the Arab States, have the opportunity to review the recommendations of the committee for Programme II (Natural Sciences) and III (Social and Human Science) presented to the Director General of UNESCO. We find it very necessary to draw the attention of the **UNESCO Director General, Arab Permanent Delegations at UNESCO in Paris and UNESCO National Commissions** to the following facts which were not emphasized in that report:

1. Great portion of the UNESCO member countries suffer from water scarcity and stress particularly in the Arab region and that there is an urgent need for the IHP programmes and activities to continue and expand its contributions to address critical water priority issues of the member states.
2. IHP presents the most comprehensive consultative programme in both its planning and implementation phases where its activities have been always reviewed and evaluated by the member states (National IHP committees), relevant UN and regional bodies, IGOs in the Arab region (ACSAD, ALECSO, ISESCO, CEDARE...etc), Scientific NGOs (IAHS, IAH, IAHR... etc).
3. Due to the complexity of water issues, it is natural that there are other UN agencies that deal with different and very specific water aspects and issues (i.e. FAO, WHO, UNIDO, WMO, UNEP, UNU...etc), yet it must be appreciated that IHP of UNESCO is the only water science and capacity building programme within the UN system that aims towards producing appropriate managerial and capacity building approaches for



sustainable development of the world water resources. It has successfully played this role during the last few years where UNESCO adopted “freshwater” as a principal priority in its science sector. To mention few of the successes, we should mention the WWAP; UNESCO- IHE; the many category II centers; and special initiatives, such as FRIEND, HELP, PCCP, G-Wadi, Groundwater initiatives, ISI, IFI ...etc. All these success stories were not at all emphasized in the committee report in recognition of UNESCO’s achievement in this direction, particularly in the last seven years.

4. IHP projects have many strong sunset conditions; nearly half of the activities are terminated at the end of a six year C/4 period and replaced by new priority water projects. In addition, IHP extrabudgetary is quite accepted to other UNESCO water related bodies and donors (and has been contributing significant funds in comparison to regular programme budget for the UNESCO water related bodies).
5. We believe that the impact of IHP on water policies in the Arab region is well appreciated and recognized by our governmental as well as by non governmental bodies, judging from the success of the IHP regional networks established and sustained (Wadi Hydrology, Groundwater Protection and Water Ethics) in the Arab region and UNESCO’s current role in the establishment of specialized category II centers.
6. We agree with the committee’s recommendation that water related activities should focus more on policy research and capacity-building without over looking to the relevant scientific basics. For IHP to achieve this recommendation, it would certainly need to be given a special budgetary preference, adequate staff resources and the moral support it deserves. Water is still a top agenda with a world-wide looming water crisis foreseen in the near future specially in arid and semi arid region such as the Arab region. Therefore we urge you, “The Director General of UNESCO”, and the UNESCO Governing Boards to keep “The freshwater programme of UNESCO” as a principal priority in the forthcoming medium term plan (2008-13) of UNESCO.

Arab experts participants endorsed this petition by signing the attached list.



List of Arab Experts

*Expert Group meeting on IWRM in the Arab Region
&
The Steering Committee Meeting of the Arab Water Networks
Manama, Bahrain 22-25 March 2007*

Name	Country	Signature
1. Dr. Muhammad Shatanawi	Jordan	
2. Dr. Manar Fayyad	Jordan	
3. Dr. Waleed Al- Zubari	Bahrain	
4. Dr. Asma Ali Abahussain	Bahrain	
5. Dr. Mubarak A. Al-Noaimi	Bahrain	
6. Dr. Ahmed Khater	Egypt	
7. Dr. Akram Fekry	Egypt	
8. Dr. Dalal Alnaggar	Egypt	
9. Dr. Magdy Hefny	Egypt	
10. Dr. Salem Rashrash	Libya	
11. Prof. Gamal Mortada Abdou	Sudan	
12. Mr. Zaher Al Suleimani	Oman	
13. Dr. Abdel kader Larabi	Morocco	
14. Dr. Ziad Mimi	Palestine	
15. Dr. Mouhammad Al-Rashed	Kuwait	
16. Dr. Fawzia Al-Ruwaih	Kuwait	
17. Dr. Fatimah Al-Awadhi	Kuwait	
18. Dr. Abdullah Noaman	Yemen	
19. Dr. Ms. Zobaida Al-Tayara	Lebanon	
20. Dr. Jean Khouri	Syria	
21. Mr. Abdullah Droubi	Syria	
22. Dr. Mahmoud Al Sibai	Syria	
23. Dr. Bahloul Eliagoubi	Tunisia	

ANNEX V
ABBREVIATIONS AND ACRONYMS

ACC	Administrative Committee on Coordination
ACSAD	Arab Center for the Studies of Arid Zones and Dry Lands
ALECSO	Arab League Educational, Cultural and Scientific Organization
COMEST	World Commission on the Ethics of Scientific Knowledge and Technology
FAO	Food and Agriculture Organization
GEF	Global Environmental Facility
HDR	Human Development Report
HELP	Hydrology for the Environment, Life and Policy
IAEA	International Atomic Energy Agency
IAHS	International Association of Hydrological Sciences
ICSU	International Council for Science
IFI	International Flood Initiative
IGBP	International Geosphere Biosphere Programme
IHD	International Hydrological Decade
IHP	International Hydrological Programme
IIASA	International Institute for Applied Systems Analysis
IOC	Intergovernmental Oceanographic Commission
ISARM	International Shared Aquifer Resource Management
ISDR	International Strategy for Disaster Reduction
ISESCO	Islamic Educational, Scientific and Cultural Organization
ISI	Institute for Scientific Information
ISPs	Intergovernmental/International Scientific Programmes
IUGS	International Union of Geodesy and Geophysics
JIIHP	Joint International Isotopes in Hydrology Project (UNESCO-IAEA)
MAB	Man and the Biosphere
MDGs	Millennium Development Goals
MLA	Main line of action
NGO	Non-governmental organization
OAS	Organization of American States
PCCP	From Potential Conflict to Co-operation Potential
SCOWAR	Scientific Committee on Water Research
UIS	UNESCO Institute for Statistics
UNDP	United Nations Development Programme
UNECA	United Nations Economic Commission for Africa
UNECE	United Nations Economic Commission for Europe
UNECLAC	United Nations Economic Commission for Latin America and the Caribbean
UNEP	United Nations Environment Programme
UNESCAP	United Nations Economic and Social Commission for Asia and the Pacific
UNESCO	United Nations Educational, Scientific and Cultural Organization

UNESCO-IHE	UNESCO-IHE Water Education Institute
UNESCO-UNEVOC	UNESCO International Centre for Technical and Vocational Education and Training
UNESCWA	United Nations Economic and Social Commission for Western Asia
UN-HABITAT	United Nations Human Settlements Programme
UNHCR	United Nations High Commissioner for Refugees
UNICEF	United Nations Children's Fund
UNIDO	United Nations Industrial Development Organization
UNU	United Nations University
WHO	World Health Organization
WMO	World Meteorological Organization
WWAP	World Water Assessment Programme
WWDR	World Water Development Report