12th Meeting of the CSPR  
1st – 2nd September 2006  
ICSU Secretariat, Paris

DECSIONS


Apologies: B. Abegaz, C. Bréchignac (ex officio), M. Clegg, H. Schellnhuber, H. Vessuri

Secretariat: L. Geller, G. Glaser (p.11), C. Smith

1. Opening of the Meeting

The Chair welcomed all participants, noting that some CSPR members were unfortunately unable to attend due to scheduling difficulties.

2. Adoption of the Agenda

It was noted that for future meetings, the first day will normally be scheduled to begin at 10 am, to allow some committee members to travel to Paris in the morning of the first day of the meeting.

Decision:
To adopt the Agenda.

3. Reports of the 11th CSPR Meeting and 93rd Executive Board Meeting

The decisions of the 11th meeting of the CSPR were circulated to members and comments have been incorporated in the current version.

The Executive Board met in April and considered several of the items on which CSPR had been asked to provide advice or which are of direct relevance to CSPR. The decisions of the meeting were provided for information and attention was drawn to the following:

- Item 8 – the planning matrix, developed by CSPR, was adopted;
- Item 13 – procedures for nominations for ICSU bodies were endorsed;
- Item 15 – the ISPRE proposal was approved. [The co-sponsors also subsequently approved it and the ICSU Officers agreed on the Panel membership when they met in July]
- Item 19.1 – it was agreed, as recommended by CSPR, that ICSU should co-sponsor the World Climate Conference – 3. The Executive Director will represent ICSU on the Organizing Committee.
- Item 19.2 – it was agreed, as recommended by CSPR, that ICSU should co-sponsor the Resilience Alliance Open Science Meeting.

Decision:
To note the report from the 11th meeting of the CSPR and the decisions of the 93rd meeting of the Executive Board.
4. **ICSU Strategic Plan 2006-2011**

A brief orientation on the implementation of the ICSU Strategic Plan 2006-2011 was given for the benefit of the CSPR members who did not attend the previous meeting.

The Chair proposed that the implementation matrix should be revisited as the last substantive item on the agenda at each CSPR meeting as a way for CSPR to evaluate how the various issues they have been discussing are progressing within the larger context of implementing the ICSU Strategic Plan.

It was suggested that careful attention must be paid to the question of whether the Secretariat will be able to effectively maintain such a large portfolio of activities, without substantially greater financial and staff resources.

In discussions of the ICSU 75th anniversary events, there was particular enthusiasm for the 'young scientist' event currently being planned. The Secretariat was encouraged to draw upon examples of successful young scientist outreach events that have been carried out by ICSU National Members, Scientific Unions, and Interdisciplinary Bodies.

**Decision:**
To note progress in the implementation of the Strategic Plan.

5. **Social Sciences Resolution of the 28th General Assembly**

ICSU International Scientific Unions that cover areas of social sciences and humanities include the International Geographical Unions (IGU), International Union of Anthropological and Ethnological Sciences (IUAES), International Union of the History and Philosophy of Science (IUHPS), and the International Union of Psychological Sciences (IUPsyS). ICSU also collaborates in a number of activities with the International Social Science Council (ISSC).

An *Ad hoc* Committee on Membership Issues found that with regard to the representation of disciplines within ICSU, the following areas warranted further investigation: Social sciences (Economics, Law, Demography, Sociology) and Health (Clinical epidemiology, Clinical research). A resolution of the ICSU 28th General Assembly recommended that the Executive Board be mandated to explore and identify the most appropriate mechanisms for securing the interaction and added value of the social sciences in ICSU’s scientific work; and asked to report back on its findings and recommendations at the next General Assembly in 2008.

The CSPR discussed options for strengthening involvement of social sciences in ICSU, such as adding Member Unions in social science disciplines not yet represented, more fully involving ISSC as institutional partner in ICSU activities, and continuing in an *ad hoc* fashion to seek names of scientists from disciplines not represented by the current ICSU Scientific Unions.

Concern was expressed that the lack of structured input from the social sciences may increasingly impede ICSU’s ability to carry out its mandate. Several committee members felt that ICSU must go beyond the business-as-usual practice of inviting social scientists to contribute to efforts that have already been defined by the ‘traditional’ ICSU membership. There were differing views about the extent to which the social science community must be equal partners at the table, helping from the outset to define the challenges to be addressed. The committee further reflected on the question of whether the current exercise was intended to simply find ways for the social sciences to add to what ICSU is already doing, or whether it was possible to consider an epistemological redefinition of ICSU itself.

It was suggested that too strong a focus on the question of what individual social science disciplines can bring to the ICSU family may simply exacerbate the problems of isolated, disciplinary-oriented thinking,
instead of facilitating the desired trans-disciplinarity. At the same time, it was recognised that ICSU is a
membership organisation with a defined structure that is partially based on disciplines, and strong disciplines
underpin what ICSU is trying to achieve. In this context, it was also noted that ICSU has yet to fully exploit
the fact that many of its National Members already incorporate social sciences into their own structures. The
experiences of these National Members could assist ICSU in formulating an appropriate relationship between
the natural sciences and social sciences domains in the discharge of the ICSU mandate.

It was agreed that CSPR members should develop further these ideas on how ICSU can best strengthen
social sciences input, and that the next CSPR meeting should include an extra half-day, to allow ample time
for further reflection on this topic. The aim is to produce a draft document that can be circulated to all
Members for input to assist the CSPR in formulating a document that would be forwarded to the Executive
Board

**Decision:**
To ask two subgroups of CSPR members (Group 1 led by A. Whyte + R. Balstad and P. Ritchie; Group 2 led
by H. Gupta, + R. Ramaswamy and K. Raivio), and the Secretariat, to develop short discussion documents as a
starting point for discussion at the next CSPR meeting.

6. **Hazards and Disasters**

The Planning Group appointed by CSPR at its 10th meeting held its first meeting in Paris on 20-21 June 2006
under the chairmanship of Prof. Gordon McBean (Canada). A second planning meeting will take place on
23-25 January 2007, by which time a preliminary report will have been drafted. It is intended that the draft
Report then be sent out for review to ICSU National Members and Interdisciplinary Bodies, partner
organizations and funding organizations. A third and final meeting will then take place 22-23 May 2007
before the Report is finalized for submission to the CSPR by July 2007.

The ICSU Regional Committee for Africa has identified hazards as one of its four initial priorities. A
Planning Group has been established and the Regional Committee has discussed a first draft of the report
from the Group. Two members of the Planning Group of the African initiative are also members of the
ICSU Scoping Group. The ICSU Regional Committee for Asia and the Pacific has also identified hazards as
an initial priority, and a symposium on this topic has been organized for 18-19 September 2006 in
conjunction with the inauguration of the Regional Office.

CSPR stressed the importance of focusing on areas where ICSU can truly add value to what is already being
done by its Members and other organisations. It was suggested that the Planning Group’s report should
provide a clear explanation for how new ICSU efforts will relate to existing activities in this realm. Also
needed is clear rationale for how the scope of the initiative is defined, in light of ongoing questions about
acute vs chronic hazards, natural vs human-induced hazards, etc.

**Decision:**
To note progress in the planning process.

7. **Human Health**

The ad hoc Scoping Group on Human Health, under the Chairmanship of Dai Rees (ex-CSPR and UK) met
for the first time on 29-30 June, and reached the preliminary conclusion that ICSU might work with its
Members and other stakeholders to promote a systems analysis approach to complex population health
problems. ‘Urbanization’ was proposed as an initial demonstration theme that would combine many of the
current interests of ICSU’s Unions and Interdisciplinary Bodies.

The Executive Committee of the Unions Science for Health and Wellbeing (SHWB) initiative met
subsequently on 1-2 August together with Dai Rees and the Deputy Executive Director of ICSU.
CSPR considered the preliminary report from the Scoping Group, in the light of the initial reaction of the SHWB Executive Committee. The final report from the Scoping Group was expected to come to the next CSPR meeting (February 2007). However, it was already being tentatively proposed that a workshop be planned for autumn 2007 and a larger conference in 2008.

There was some concern raised about the complexity of the selected demonstration theme - urbanization. Members expressed strong support for a systems analysis approach, although there needs to be a clear definition of what this actually entails. They also noted that a great deal of historical and contemporary work has been done on issues of urbanization and health, and some sort of assessment of existing initiatives may be needed as a starting point.

**Decision:**
To note the progress to date and the future timetable; and
to emphasize the need to clearly identify the unique niche and audience for the effort.

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### 8. Millennium Ecosystem Assessment Follow up

Following discussions by the MA Oversight Committee, it was decided that ICSU, UNESCO, and UNU will take the lead on the development of a report on the gaps in scientific understanding at the global and sub-global levels identified though the MA process. Terms of Reference and membership of the Ad Hoc Follow-up Committee have been discussed among the Secretariats of ICSU, the UNU, and UNESCO. The MA Oversight Committee has decided to award ICSU $40,000 for the preparation and publication of the report. A first meeting of the Committee is planned for early 2007.

**Decision:**
To approve the ToR; and
to appoint members of the Committee (Annex 1).

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### 9. Commission on Sustainable Development (CSD)

**CSD 14/15** The 14th session of CSD, which took place at the United Nations headquarters in New York, 1-12 May 2006, focused on the topics of energy, air pollution/atmosphere, climate change, and industrial development. This session reviewed progress, and obstacles to progress, in meeting sustainable development goals in the above four areas. ICSU (together with the World Federation of Engineering Organizations) submitted a Discussion Paper to CSD as official input from the S&T Community, organized an international delegation of prominent scientists and engineers to participate in the meeting, and delivered a formal statement at the high-level segment, attended by government ministers from more than 90 countries. ICSU also organized a side event on “Prediction of Climate Change and its Impacts: State-of-knowledge and Priority Areas for Strengthening Science-Policy Links.”; as well as a separate day-long gathering among Major Groups representatives, which included a multi-stakeholder discussion about defining R&D priorities in the area of energy.

Planning is currently underway for CSD15 (30 April - 11 May 2007), which will be focused on the same cluster of topics, and aimed at identifying policy actions needed to overcome the obstacles identified in the CSD14 review session.

**CSD 16/17** The focal topics for the next round of CSD meetings (2008/2009) are agriculture, rural development, land, drought, desertification, and regional focus on Africa. Numerous current and recent activities sponsored by the ICSU community are related to these themes, for instance:

- Global Terrestrial Observing System (GTOS)
- Global Land Project of IGBP and IHDP
- Global Environmental Change and Food Systems (GECAFS) of ESSP
- Intl Assessment of Agricultural Science and Technology for Development
- Millennium Ecosystem Assessment (MA) and MA follow-up
• ICSU Report: *New Genetics, Food and Agriculture: Scientific Discoveries-Societal Dilemmas*
• International Nitrogen Initiative, a SCOPE/UNEP project
• A new SCOPE project on modern agriculture

**Decision:**
To note developments for CSD 15;
to ask the Secretariat to explore the idea of convening a small group of experts to assist with the planning for CSD 16/17;
to make efforts to involve the ICSU Regional Offices, especially the African Regional Office, in the planning for CSD16/17; and
to use CSD 16/17 as an opportunity to try strengthening scientific input to the UN Convention to Combat Desertification.

**10. International Science Panel on Renewable Energies (ISPRE)**

The proposal for establishing the International Science Panel on Renewable Energies (ISPRE) has been approved by the ICSU Executive Board and by the two other proposed co-sponsoring organizations: the Renewable Energy Policy Network (REN21) and the International Council of Academies of Engineering and Technological Sciences (CAETS). Nominations for the ISPRE membership were solicited from the networks of ICSU, CAETS, and REN21. Based on these recommendations, a membership slate was proposed. The slate received preliminary approval at the last ICSU Officers meeting, subject to further consultation with the sponsors. It is anticipated that the Panel will be officially convened, and will hold its first meeting, before the end of 2006.

**Decision:**
To express support for ISPRE, and note the list of members to be invited to serve on the Panel.

**11. Global Observing Systems (GCOS, GOOS, GTOS, GEOSS)**

ICSU is a co-sponsor with major UN bodies of three Global Observing Systems for climate, oceans and land. In addition, a governmental Global Earth Observation System of Systems (GEOSS) has been established at the 3rd Earth Observation Summit in 2005. ICSU plays a major role in the developments as the voice of the international science community. ICSU also ensures that there are efficient links with the international research programmes sponsored by ICSU.

**Global Climate Observing System (GCOS).** ICSU is a co-sponsor of GCOS together with the Intergovernmental Oceanographic Commission (IOC) of UNESCO, the United Nations Environment Programme (UNEP), and WMO as the implementing agency. GCOS has been very effective in linking both with the World Climate Research Programme (WCRP; sponsored by ICSU, WMO and IOC) as well as with the Framework Convention on Climate Change (UN FCCC). WCRP is currently also discussing formal links with FCCC. This provides an excellent model of the links between scientific research, monitoring and policy.

The GCOS Steering Committee is appointed by the sponsors. The process involves informal consultations among the Executive Heads of the four sponsors. ICSU has now received a request to approve new Members on the GCOS Steering Committee. This proposal takes into account ICSU priorities on geographical balance but has been less successful with regard to gender balance. Also, ICSU has insisted that members should not serve for more than two terms to allow for appropriate rotation.

**Global Ocean Observing System (GOOS).** ICSU is a co-cosponsor of GOOS together with IOC, UNEP and WMO with IOC as the implementing agency. Some concerns regarding GOOS were discussed at the 11th CSPR meeting. The current Memorandum of Understanding between the sponsors does not relate to the System as such but to “Scientific and Technical Advice on the Global Ocean Observing System”. At the
recommendation of IOC, a draft revised MoU was prepared to cover the System (similar to GCOS and GTOS) rather than components of the System.

CSPR discussed the draft MoU, and made suggestions for revision. Members expressed concern that the role for ICSU as co-sponsor was considerably diluted compared to the previous agreement.

Global Terrestrial Observing System (GTOS). ICSU is a co-sponsor of GTOS, together with FAO, UNESCO, WMO and UNEP, with FAO as the implementing agency. A meeting of the GTOS Steering Committee (SC) took place at the end of January 2006. A major outcome of the meeting was a decision to develop a GTOS strategic plan which would replace the GTOS Implementation Plan, agreed in 1996. This new strategic plan will have to take into account the considerably changed international institutional environment, in particular the interrelationships between GTOS and the evolving Global Earth Observation System of Systems (GEOSS). A meeting of GTOS Panel Chairs took place at the ICSU Secretariat (end of June 2006). The agenda included seeking preliminary views of Panel Chairs on designing a new GTOS strategy. In addition, the Memorandum of Understanding between the co-sponsors is being revised and a draft for a new agreement will hopefully be presented to the next meeting of the CSPR.

Global Earth Observation System of Systems (GEOSS). The Group of Earth Observations (GEO) established to develop GEOSS has both National Governments and Participating Organizations (including ICSU) as members. In 2006, the GEO Work Plan has initiated implementation of GEOSS.

The GEO Plenary has established four Committees (Architecture and Data; Capacity Building, Science & Technology, and Outreach). The Science and Technology Committee (STC), co-chaired by Germany, South Africa and ICSU (the Executive Director), held its first meeting in April 2006. The meeting agreed on a process for preparing a GEOSS “science plan” or, what ICSU would prefer to focus on, setting up a system of facilitating (i) linkages and partnerships with major relevant international research programmes and, as appropriate, (ii) advice by other scientific organizations and individual experts. Dr. Michael Manton (WCRP and Australia) will represent ICSU on the Ad hoc Group to develop this plan.

ICSU is represented by Roberta Miller (USA) and Ray Harris (UK) on the GEO Data and Architecture Committee, while Hassan Virji (USA) represents ICSU (as well as IGBP) on the Capacity Building Committee. ICSU has currently no representation on the Outreach Committee.

Decision:
To note developments; and
to request the Secretariat to consider the suggestions by CSPR regarding the revised MoU for GOOS.

12. Regional Offices

The ICSU Regional Office for Africa was inaugurated at the National Research Foundation, Pretoria, South Africa in September 2005. The ICSU Regional Office for Asia and the Pacific will be inaugurated on 19 September 2006 at the Academy of Sciences Malaysia in Kuala Lumpur. The Regional Office for Latin America and the Caribbean will be located at the Brazilian Academy of Sciences in Rio de Janeiro and it is expected that the inauguration will take place in December.

ICSU Regional Meetings were held in Harare (October 2004) and Kuala Lumpur (April 2005). A second meeting for Africa will be held in September and the first meeting for Latin America and the Caribbean will be held in Panama in October 2006. Consultations are still ongoing regarding the ICSU Regional Office for the Arab Region.

Since the Regional Offices/Committees will develop activities based on the ICSU Strategic Plan 2006-2011, it is important that there are excellent links between the activities at the regional and international levels. This can, for example, be assured through appointing members of Planning Groups, etc. on both regional and international committees. As one example, two members of the Scoping Group on Hazards appointed by CSPR are also members of the hazards Planning Group appointed by the ICSU Regional Committee for Africa.
Some of the main points raised in CSPR’s discussion of the Regional Offices included the following:

- There are numerous examples of international organizations that have failed in their attempts to implement regional-level efforts; and there is no reason to think this challenge will be any easier for ICSU. The leadership of ICSU (including CSPR) and of the Regional Offices will need to continually assess the effectiveness of the relationships between global- and regional-level activities.
- Efforts should be made to ensure that the benefits of the Regional Offices are shared by all countries in a region, not dominated by the stronger countries.
- There are numerous private foundations and bi-lateral donor sources that could be interested in funding regional office activities.
- ICSU should try to ensure that the Regional Office efforts do not lose sight of the need to foster capacity building in the basic sciences.

**Decision:**
To continue to monitor the developments of the Regional Offices at future CSPR meetings; and to ask the Secretariat to put this issue on the agenda of the next Unions’ meeting.

### 13. ICSU-European Science Foundation (ESF) regional conferences

Discussions had recently taken place with ESF to developing a conference on basic, cutting-edge science topics that would bring together mainly African and European scientists. It was proposed that the conference takes place in South Africa in 2007 with the support of the ICSU Regional Office for Africa. The Royal Netherlands Academy of Arts and Sciences had expressed a strong interest in co-sponsoring the conference series and the Network of African Science Academies had also been approached. The proposal was discussed at the 4th meeting of the Regional Committee for Africa, which expressed its strong support.

Whilst the first conference was being conceived mainly as a Europe-Africa bilateral event, the longer-term aim is to involve the other ICSU Regional Offices and establish tri-lateral, e.g. Europe-Asia-Africa, or larger meetings depending on the topical interests of particular regions. It was noted that ESF meetings are traditionally international and include scientists from North America as well as Europe. It will also be important to ensure that the relevant Scientific Unions are involved.

**Decision:**
To recommend to the Executive Board that ICSU co-sponsor a conference series with ESF and other appropriate partners; to recommend that appropriate ICSU Unions be involved; and to ensure that the conferences provide a forum for outstanding young scientists to network among themselves as well as with leading scientists in the field.

### 14. Data and Information

#### 14.1 Ad hoc Strategic Committee on Information and Data

The specific actions that ICSU has committed to in order to achieve its strategic goals include the establishment of an Ad hoc Strategic Committee on Information and Data (SCID); the development of a Scientific Data and Information Forum (SciDIF); and, reform of the World Data Centres (WDC) and Federation of Astronomical and Geophysical Data Analysis Services (FAGS).

The necessary first step is the establishment of SCID, which should be charged with developing a long-term strategic framework as well as taking forward the other principal actions. CSPR was asked to consider the draft terms of reference that had been developed, based on the PAA Panel discussions, for SCID.

Members expressed some concern as to the ambitions for SCID particularly with regards to establishing a ‘long term strategic framework’. It was noted that many areas of scientific data and information were developing extremely rapidly and that there has been considerable change even since the PAA report was...
published in 2004. It was suggested that the terms of reference for SCID should be carefully related to ICSU’s existing data and information structures – WDCs, FAGS and also CODATA. The committee membership should reflect this more focussed role and, given the need to establish this committee quickly, it was not considered necessary to consult all ICSU Members for nominations.

14.2 Global Information Commons for Science

Ensuring and improving access to scientific data and information has been a long-term interest of ICSU and will continue to be a high priority for the future. However, as described in the PAA report, the internet and www have revolutionised the practice of science and provide new opportunities, as well as threats, to data and information access. In particular, there are conflicting tensions between commercialization of scientific data and moves towards open on-line access for both data and information.

‘Open access’ for science was a particularly hot topic at the World Summit on the Information Society (Geneva, 2003 and Tunis, 2005) in which ICSU was actively involved. As part of the summit process, the ICSU Committee on Data for Science and Technology (CODATA) took the lead in developing a Global Information Commons for Science Initiative (GICSI). This initiative directly responds to the summit action plan and also addresses many of the recommendation in the PAA report, albeit with a limited focus on access issues.

CSPR considered the merits of this proposal in the context of ICSU’s strategic aims in relation to data and information. It was noted that it is unusual, but not unprecedented, for ICSU to co-sponsor programmes with its own Members or Interdisciplinary Bodies, but a strong case for direct ICSU involvement would need to be made.

Committee members expressed support for the proposal, which clearly related to ICSU’s aims with regards to increasing access to data and information. However, it was not clear how this work fitted with CODATA’s future strategy. Potentially, CODATA was a key instrument for delivering on ICSU’s overall goal for scientific data and information but, as noted in the PAA report, it needed to make strategic choices as to its future priorities and direction. It was suggested that the best approach is for ICSU to endorse this GICSI initiative but not co-sponsor it, and for the SCID (see 14.1) to liaise with CODATA on the development of its strategic plan.

14.3 Observatory on Science and Intellectual Property Issues

One of the major concerns relating to scientific data and information is the need to develop national and international policies on Intellectual Property Rights (IPR) that strengthen rather than weaken science. In practice, IPR issues extend beyond data and information and have a significant impact on the sharing and use of scientific equipment and materials and the universality of science as a whole. Various ICSU bodies – the Executive Board, CODATA, CDSI, SCFCS, COSTED, had previously been involved in these issues but there has been no clear focus for such activity and no established connection with relevant policy-making structures.

An assessment has been made of what information is currently available on-line regarding the ongoing development of IPR policies and specific implications for science. This provided the basis for the development of a preliminary proposal for an Observatory on Science and Intellectual Property Issues. If such an Observatory were to be developed, suitable partners (e.g. AAAS is mentioned in the proposal) and a host organization would need to be identified, and financial support would need to be sought. Several National Members of ICSU might be interested in providing some support.

Committee members expressed strong support for this proposal and noted the increasing importance of IPR issues for the practice of science

**Decision:**
To approve the following Terms of Reference for an *ad hoc* Strategic Committee on Information and Data (Annex 2);
to appoint Roberta Balstad as CSPR liaison for this Committee and ask her to work with the Secretariat to develop a proposal for other members to be approved electronically by CSPR;
to note the importance of the Global Information Commons for Science Initiative and strongly encourage CODATA to develop a strategic plan for this initiative, in line with the PAA recommendations; and, to recommend to the Executive Board that the Secretariat take steps to pursue the establishment of an Observatory on Science and Intellectual Property Rights issues.

15. Grants Programme

15.1 Membership of the Grants Review Committee

At the 28th ICSU General Assembly it was agreed that the grants programme should be suspended for 2007 and a review should be conducted in 2006-07. CSPR is entrusted with this review and at its last meeting the Terms of Reference of the Review Committee and CSPR representation on that committee were agreed. John Marks (ex-CSPR) agreed to chair the review, and it was agreed that the committee should include two representatives each from Scientific Unions and Interdisciplinary Bodies. The first meeting will take place on 9-10 November.

15.2 Evaluation of final reports on grants completed in 2005

Whilst the grants programme itself is currently suspended, a number of projects were completed in 2005 and final reports on these have been submitted. In line with recent practice CSPR was asked to evaluate these reports and provide feedback to the grantees.

The CSPR decided that the evaluation would be carried out by a sub-committee comprising members who were reappointed from the previous CSPR. Overall, the sub-committee expressed some disappointment at the quality of the final reports and particularly on the reporting on use of resources. Whilst all of the projects appeared to have had useful outcomes, only three (out of six) reports were considered to be of reasonable quality. These related to grants to IGU, IUGG and WCRP/GECAFS. The drawbacks in the reports from CODATA, DIVERSITAS and IUPHAR were identified.

Decision:
To approve membership of the Grants Review Committee (Annex 3); and to provide feedback on final reports to the 2005 grant recipients.

16. Review of the Global Change Research Programmes

16.1 International Human Dimensions Programme on Global Environmental Change (IHDP)

IHDP provided a response to the external review report, which was considered by the CSPR. Members felt that IHDP does appear to be making a sincere effort to address the recommendations from the External Review Committee.

Decision:
To note the constructive response from IHDP; and to review developments once the IHDP Strategic Plan is available.

16.2 Earth System Science Partnership (ESSP)

Subsequent to the previous CSPR meeting, revised Terms of Reference for the reviews of the Earth System Science Partnership (ESSP), the International Geosphere-Biosphere Programme (IGBP), and the World Climate Research Programme have been developed following informal consultations. The drafts have been submitted to the relevant programmes plus the International Group of Funding Agencies for Global Change Research (IGFA) and their responses were reported on. For WCRP, requests for comments and nominations have also been sent to WMO and IOC. The programmes and IGFA were also asked to propose names for members of the Review Panel.
At the annual ESSP meeting in June, it was suggested that ICSU be approached to sponsor a fifth global change research programme; the Earth System Science Programme and to appoint four members, including the Chair, of a Scientific Committee for this Programme. Thus, the current loose partnership consisting of four Joint Projects (carbon, water, food systems, and health), regional studies (Asian Monsoon Region) and capacity building efforts (System for Analysis Research and Training - START) would become an ICSU sponsored programme with a dedicated secretariat. The formal request has not yet been received, so this part of the agenda item was for information only.

Decision:
To request the Secretariat to submit to CSPR a revised Terms of Reference for the review of the Earth System Science Partnership, and a more complete set of biographical template forms for the proposed membership of the Review Panel; and
to approve membership of the Review Panel and ToR electronically.

17. THORPEX

Subsequent to the February CSPR discussion, ICSU requested all Scientific Unions, National Members and Interdisciplinary Bodies to comment on the possibility that ICSU becomes a co-sponsor of THORPEX – a World Weather Research Programme. CSPR reviewed these comments, and was in full support of ICSU becoming a cosponsor of this activity. Concerns were expressed that the current THORPEX structure is dominated by governmental, rather than scientific, perspectives.

Decision:
To recommend to the Executive Board to cosponsor THORPEX with WMO, contingent upon satisfactory resolution of concerns about the THORPEX governance structure.

18. Dates for Next Meeting

The Chair suggested that an evening at the next meeting be set aside for presentations by one or more CSPR members, to talk about their personal scientific research interests.

Decision:
To hold the next two CSPR meetings on the following dates:
10 February (starting with lunch ) - 12 February 2007 (ICSU Secretariat)
14 September (starting at 10:00) - 15 September 2007 (ICSU Secretariat)

19. Any Other Business

CSPR was asked to approve two new nominees for the Scientific Committee of IGBP.

Decision:
To recommend to the Executive Board that the proposed members of the IGBP Scientific Committee (Annex 4) be appointed for the period 2007-2009.

Khotso Mokhele
Vice President for Scientific Planning and Review

Thomas Rosswall
Executive Director, ICSU
Annex 1

Members Invited to Serve on an Ad Hoc Committee
to Summarize Gaps in Scientific Knowledge
Based on the Millennium Ecosystem Assessment

John Agard
Chairman, Environment Management Agency
Trinidad and Tobago, West Indies

Doris Capistrano
Center for International Forestry Research
Jakarta Indonesia

Stephen R. Carpenter
Center for Limnology, University of Wisconsin
Madison, WI USA

Ruth DeFries
Department of Geography, University of Maryland
College Parks Maryland USA

Sandra Diaz
Senior Researcher and Associate Professor
Instituto Multidisciplinario de Biología Vegetal
Universidad Nacional de Córdoba – CONICET
Argentina

Tom Dietz
Director, Environmental Science and Policy Program, Professor of Sociology and Crop and Soil Sciences,
Michigan State University
East Lansing, Michigan USA

Anantha K. Duraiappah
UNEP
Nairobi Kenya

Harold Mooney, Chair
Department of Biological Sciences, Stanford University
Stanford, CA USA

Alfred Oteng-Yeboah
Environmental and Health Sector, Council for Scientific & Industrial Research
Accra Ghana

Henrique Miguel Pereira
Instituto Superior Técnico
Lisboa Portugal

Charles Perrings
Global Institute of Sustainability, Arizona State University
Tempe, AZ USA
Walter Reid  
Conservation and Science Program, The David and Lucile Packard Foundation  
Los Altos, CA USA

José Sarukhàn  
Instituto de Ecología, Ciudad Universitaria  
Mexico City, Mexico

Bob Scholes  
Division of Water, Environment and Forestry Technology  
Pretoria, South Africa

Anne Whyte  
Mestor Associates  
Russell, Canada
Terms of Reference for a Millennium Ecosystem Assessment Science Follow-up Committee

One of the recommendations from the Millennium Ecosystem Assessment (MA) Partners Meeting in Kuala Lumpur in September 2004 was that ICSU and UNESCO should take the lead in addressing how the experiences from the MA could help identify needs for additional research that could fill some of the knowledge gaps identified by the Assessment. The need for such an analysis has also been stressed in the follow-up discussions in relation to the development of a proposal for a GEF Medium Size Grant. UNU has later agreed to join ICSU and UNESCO in this follow-up activity and it has been decided to move forward despite the uncertain fate of the GEF proposal.

The MA involved a large number of scientists worldwide and through the assessment process it was realized that sufficient scientific knowledge was not always available both at the sub-global and global levels.

There is a seamless link between research and assessments. The development of a science agenda will hopefully stimulate the science community to conduct additional research to address key issues in linking ecosystem services and human well-being. This is still a new area of research, which is hampered by universities and funding agencies often not structured in such a way as to stimulate research on the links between ecological and social systems.

There are several initiatives, such as the Earth System Science Partnership (the four global change research programmes of ICSU and others), the Resilience Alliance, UNESCO-MAB, etc, that already exists and contribute substantially in engaging the international science community. In addition, ICSU with partners published a report on Science, Technology and Innovation for Sustainable Development (ICSU-ISTS-TWAS, 2005) as a follow-up to the World Summit on Sustainable Development.

The development of a science agenda based on experiences from the MA should build on, and involve scientists from, the sub-global assessments. The initiative could also help stimulate the development of new sub-global assessments by engaging the science community in reflections over research needed to assess linked ecological-social systems. During the 2004 consultation, it was recommended that the following actions were especially urgent as follow-up to the MA:

1. A methodological handbook, currently developed by WRI, was considered by the MA Board as the highest follow-up priority. This document will also be essential for stimulating further sub-global assessments;
2. The “main-streaming” at the national level through the World Bank Institute, UNDP and others;
3. A coordination function to be established for a limited period of time to maintain the enthusiasm among the sub-global assessment and help stimulate the development of new ones in important systems not covered by the formal MA assessments;
4. An assessment of the gaps in scientific knowledge identified through the MA process. This priority is addressed through this document.

Thus, all four follow-up components are intimately linked and all necessary to ensure the use of the MA results both by the science community and non-academic end-users.

ICSU, UNESCO and UNU will convene a Scoping Group of experts with relevant natural and social science disciplinary competence representing experiences from the MA as well as the relevant sub-global assessments to produce a report on the priority research gaps that need to be filled in order to improve any future global or-sub-global Millennium Ecosystem Assessment.

The Scoping Group shall:
1. Based on the outcomes of MA in general, and two synthesis papers that have been developed in particular, identify key knowledge gaps that should be filled through additional scientific research;

2. Prioritize research needs and indicate, whenever possible, the need for research at global versus regional scales;

3. Consider whether scientific progress will best be achieved through a decentralized bottom-up approach, regional foci through research/assessment projects, and/or an internationally coordinated research effort;

4. Suggest ways by which a research agenda could be further developed to address the identified priority knowledge gaps; and

5. Discuss and agree on possible mechanisms for implementing research to fill targeted knowledge gaps.

The report will be transmitted to ICSU, UNESCO and UNU. If the report recommends further development of international and/or regional coordinated approaches, ICSU, UNESCO and UNU will engage the wider science community and other potential MA partners (e.g., IUCN, WRI, etc.) to consider appropriate mechanisms to develop a science and implementation plan, related time schedules, resource needs and possible partnerships, to address the identified research gaps.

It is envisaged that the small group of experts will be convened soon and that a first meeting should be arranged in the latter part of 2006. It is anticipated that most developments will be conducted through electronic communication and conference calls. However, at least one more meeting will be convened to agree on the final report, which should be finished before mid-2007.
Annex 2

Terms of Reference for an *ad hoc* Strategic Committee on Information and Data

Taking the report of the CSPR Assessment Panel on Scientific Data and Information as its starting point, and in the light of developments subsequent to that report:

1. To guide and oversee the reform of the World Data Centre (WDC) system and Federation of Astronomical and Geophysical data analysis Services (FAGS);

2. to liaise with CODATA in the development of its strategic plan;

3. to advise CSPR on any other actions that might be appropriate for ICSU to consider in order to facilitate a coordinated global approach to scientific data and information, including the potential need for a Scientific Data and Information Forum (SciDIF).
Annex 3

Members Invited to Serve on a Review Committee of the ICSU Grants Programme

John Marks, Chair
European Science Foundation
Director of Science and Strategy
Strasbourg, France

Christopher Leaver
Department of Plant Sciences
University of Oxford
Oxford, UK

Ranjan Ramasamy
Institute of Medicine
University of Brunei Darussalam
Brunei Darussalam

Pierre Ritchie
School of Psychology
University of Ottawa
Ottawa, Canada

Angelo Azzi
Tufts University
Boston, MA USA

Marcia Barbosa
Instituto de Fisica
Universidade Federal do Rio Grande do Sul
Porto Alegre, Brazil

Phoebe Barnard
South African National Biodiversity Institute
Cape Town, South Africa

Peter Willmore
Birmingham U.K.
**Annex 4**

Members Invited to Serve on the IGBP Scientific Committee

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<td>Administrator of the Chinese Meteorological Administration</td>
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