



15 May 2000

**REPORT**  
**26th GENERAL ASSEMBLY OF ICSU**

Hotel Le Meridien Cairo, Egypt  
28-30 September 1999

The 26th General Assembly of ICSU was preceded by two Symposia on Sciences and Food Security, and on Science in Egypt and by six fora. The reports of these are attached as **Annex 1**.

**1. Welcome and Opening of the General Assembly**

The Opening Ceremony for the 26th General Assembly took place in the evening of 28 September with opening addresses by H.E. Professor Dr. Mufeed M. Shehab, Minister of Higher Education and Minister of State for Scientific Research, the President of the Egyptian Academy of Scientific Research and Technology (ASRT), M. Yousry Moursy, and the President of ICSU, Professor Werner Arber.

The Officers of ICSU were presented with individual commemorative plaques by the Egyptian Academy and gave brief interventions on their collaborative experiences with their Egyptian colleagues.

The President of ICSU expressed in particular his appreciation to the Egyptian Academy for their preparation of the Assembly and to the members of the ICSU Secretariat for their hard work over the past few years. He also expressed his gratitude to J.-F. Stuyck-Taillandier, whose term as Executive Director had terminated on 31 August, for all he had done for ICSU and notably in the preparation of the World Conference on Science. He then declared the Assembly formally open.

The List of Participants is attached as **Annex 2**.

**2. Adoption of the Agenda**

The Agenda was adopted as distributed and the President reminded Members that in adopting the Agenda, they were also adopting the proposed timings given for each item. This Report follows the order of the Agenda as adopted.

**3. Reports of:**

- a) 25th General Assembly (Washington, September 1996) and of Extraordinary Session of General Assembly (Vienna, April 1998)

The Reports of the 25th General Assembly of ICSU and of the Extraordinary Session of the General Assembly held in 1998 were adopted.

- b) World Conference on Science (WCS), Budapest, 26 June-1 July 1999

W. Arber expressed his gratitude to the ICSU family for participating and collaborating with the Secretariat in the preparations for the Conference. He referred to the Background Document prepared by Professor Hoyningen-Huene and informed participants that copies were available from the ICSU Secretariat, as were copies of a Special Issue of *Science International* containing the documents adopted by the Conference. He reminded Members that this had not been an ordinary scientific meeting but one set up to foster dialogue between governments and scientists.

M. Iaccarino, the Assistant Director General for Natural Sciences of UNESCO thanked the President of ICSU for having invited him to speak on behalf of UNESCO at this Assembly. He started by saying that the World Conference on Science was a great success, thanks to the joint collaboration between ICSU and UNESCO, and he paid particular tribute to the local Hungarian Organizing Committee and its Chairman, I. Lang. He pointed out that this Conference was the perfect example of collaboration between ICSU and UNESCO: ICSU needed to reach the governments and UNESCO needed to reach the scientists. He stressed that the Conference was an opportunity for raising the status of science on the political agenda. It provided the chance for dialogue between scientists, the general public and decision-makers at large. He reminded Members that there had been many preparatory and satellite meetings at the time of the Conference involving science, engineering, technology and social sciences, all of which lead to scientific knowledge. The decision to be all inclusive had been deliberate. He pointed out that 2000 individuals, comprising 155 countries, 80 Ministers of Science, or those of equivalent rank, 28 IGOs, 63 NGOs and 250 journalists from around the world attended the Conference. The two principal documents: the Declaration on Science and the Use of Scientific Knowledge and the Science Agenda – Framework for Action, were prepared by experts from UNESCO and ICSU. The two texts, together with an Introductory Note to the Science Agenda, formed the basis for a new, closer alliance between science and society for the coming century. He emphasized that over the course of the next biennium, UNESCO will ensure that its own programme activities begin to reflect the directives spelled out in Budapest, and that the next UNESCO Medium-Term Strategy takes the results of the Conference fully into account. He informed participants that a new division charged with the WCS follow-up would be created within the UNESCO Secretariat. He ended by re-emphasising the importance of joint UNESCO-ICSU activities and initiatives in putting the recommendations and guidelines of the Conference into concrete action.

B. Richter (IUPAP) expressed his dismay that his Union, IUPAP, had not been invited to prepare a thematic session at the Conference and said that his impression of the Conference had been very different and that an opportunity for serious dialogue had been missed. He said that the scientific community was not fully involved in, nor represented at, the Conference and that the Conference had been more political than scientific. He felt that ICSU's name should not be attached to the documents, which had been adopted by the Conference. These documents were, in his opinion, empty and should not be endorsed by the ICSU General Assembly. He recognized that this would be embarrassing for ICSU but stressed that it might none the less be preferable.

W. Blum (IUSS) stated firmly that he did not share the opinions of B. Richter. He said that there was a big difference between science and politics and that a Conference such as the WCS was

necessary in order to bring the two communities together under the same roof in order for scientists to explain to politicians what the scientific community is doing, otherwise future funding for science would suffer. Many people had expressed negative feelings about the Conference documents but he felt that the final ones were a big improvement on the draft documents.

R. Halleux (IUHPS) also disagreed with B. Richter and said that he considered the Conference a big success as a first step in launching a dialogue with policy-makers, the public and the press. He pointed out that his Union was involved from the very beginning and organised two Thematic sessions. He informed the Assembly that during this Conference, he and his colleagues had lunch meetings with politicians, decision-makers and the press. He thanked the ICSU Secretariat for keeping him so well informed of all preparations before the Conference.

C.N.R. Rao (India) stated that the importance of the Conference was not to produce an agenda for physics, chemistry, biology, etc., nor was it mainly aimed at the Unions and the National Academies of Science. Rather it was intended to sensitize governments, particularly in developing countries, of the importance of science and of funding for science. He reminded Members that 75% of the world's population lived in the developing world.

I. Lang (Hungary) thanked UNESCO and ICSU for having accepted the invitation from the Hungarian Government to hold the Conference in Budapest. He stressed that it was impossible to satisfy everyone but on the whole he felt that a large majority of participants were happy with the outcome of the Conference. He reminded participants that the WCS brought the scientific and political communities together for the first time, and for this reason, the WCS was a unique event. He requested the Assembly to endorse the two Conference documents.

F.S. Rowland (U.S.A.) started by saying that he was speaking as a scientist not as a member of the US delegation. He expressed the opinion that the documents would only be useful if accepted by the political community. He explained that there was some difficulty with wording (in particular the sections dealing with traditional knowledge), which he thought could cause some problems and that, in order for the documents to be accepted, the wording in several paragraphs would have to be changed.

F. Gudyanga (Zimbabwe) told the Assembly that he had been involved in two regional preparatory meetings and that a lot of scientists had been consulted in the lead-up phases to the Conference. He said that in his opinion the Conference had been a success and he requested the Assembly to endorse the two documents. He stated that it would be a good idea to put the Conference proceedings on the Web and asked when these would be available and how much they would cost. M. Iaccarino replied by saying that hopefully the proceedings would be published by the end of February 2000 and would be 500 to 600 pages long. He did not know the price.

J. Andersen (IAU) said that he was disappointed that IUPAP did not send a representative to the Conference. He informed the Assembly that he thought the final documents were a big improvement on the draft documents and that that his Union would endorse the two documents.

S. Wandiga (Kenya) explained that the Kenyan Academy had participated fully in the Conference. He said that developing world science is very different from that of the developed world and this point was emphasized over and over again by several participants at the Conference. He expressed the hope that the Conference had provided a bridge which would help the developing world.

S. Pastrana (Cuba) said that the Conference provided an opportunity for the Latin American Regions and the Caribbean to organize several preparatory meetings which were very useful. The result of these meetings was contained in a document on commitment to science agreed by the countries of the Caribbean and Latin American Regions. The Conference had been a starting point not a conclusion.

J.E. Fenstad (Norway) explained that he had been a member of the drafting group for the Conference documents in Budapest. The question of traditional knowledge had been extensively discussed in the meetings of the group before arriving at the wording in the documents. He strongly supported C.N.R. Rao's statement concerning the need to sensitize governments in the developing world as to the importance and necessity of science.

Zhang Ze (China: CAST) felt that the Conference documents were good, not only for science but also for governments. This was a first step in cooperation with policy-makers and he believed the documents should be endorsed.

L.E. Mora Osejo (Colombia) said that developing countries needed more support and collaboration from the scientifically and technologically advanced countries in order to build up their own scientific and technological capacity and that development must not be considered simply as economical growth. Developing countries' debt should be reduced so that these countries could invest more in science and technology. He regretted that the Conference did not produce concrete measures to help the developing world.

M. Yousry Moursy and A. Ashour (Egypt) stressed that in countries where science had attained an acceptable level of importance and funding, the reaction of IUPAP was understandable. However, this was not the case for countries in the developing world and the role of the WCS was to convince these governments not just to fund science and technology but to express a positive commitment to this.

The two documents, *Declaration on Science and the Use of Scientific Knowledge* and the *Science Agenda – Framework for Action*, were endorsed by the Assembly with a reservation concerning certain paragraphs (Resolutions of the 26th General Assembly of ICSU, **Annex 3**).

#### **4. Report of the Secretary General**

The Assembly noted the Secretary General's written report which was in their files.

The Secretary General, H.A. Mooney, then introduced the new Executive Director of ICSU, L.R. Kohler, who would take up his functions on 01 January 2000. L. Kohler expressed the pleasure and honour he felt in taking on this responsibility and said that he looked forward to the support of all Members in carrying out his new tasks.

#### **5. Reports from 4 Major ICSU Programmes**

##### a) IGBP and START

E. Odada gave an overview of the current structures and activities of IGBP and START. He mentioned in particular that during the period 1998-2001 IGBP had embarked on a phase of synthesis for which three topics had been selected: carbon, food and fibre, and water. IGBP is planning its first Open Science Conference in the Netherlands in 2001, which will be convened in collaboration with WCRP, IHDP and START.

b) IHDP

E. Ehlers, Chairman of the SC-IHDP, gave a description of the current projects within the IHDP programme. He described the increasing interconnection between all the global change programmes and the added demands that this was placing on the programme secretariats staff and resources.

c) DIVERSITAS

The Environmental Sciences Officer of ICSU, A. Larigauderie, gave a general presentation of DIVERSITAS, with particular mention of the link between this Programme and the Secretariat of the Convention on Biological Diversity.

**6. Appointment of Resolutions Committee and Tellers**a) Resolutions Committee

The following persons were appointed to serve on the Resolutions Committee:

J. Dixon (Jamaica), Chairman  
A. El Sawy Shoukry (Egypt)  
N. Platé (Russia)  
B. Richter (IUPAP)

b) Tellers

The following persons were appointed as Tellers:

A.-C. Clottu-Vogel (Switzerland)  
D. Donnelly (Ireland)  
S.J. Pastrana (Cuba)

**7. Report on Finance**

The Treasurer of ICSU, Y. Verhasselt first expressed her thanks to the Chairman of the former Standing Finance Committee (SFC), Dr. Michel Petit and to its members for the work they had accomplished during the last three years. She then presented the Report on Finance to the General Assembly as a joint communication from the Chairman of the SFC and herself.

With the help of transparencies, the Treasurer commented on the evolution of the net results of ICSU from 1990 to 1998, explaining in particular that the sale of *Bioessays* in 1997 permitted an increase in ICSU's mandatory reserve to 1.55 million US\$, as decided by the Executive Board. She also explained in detail the evolution of the Operational Expenditure and that the line "Total ICSU Reserve" was composed of the Mandatory Reserve referred to above and additional contingency money. A third transparency enabled the Treasurer to show how ICSU had contributed, along with UNESCO and some other foundations, to its own scientific activities from 1990 to 1998, for example, the holding of the ASCEND 21 Conference in Vienna in 1991.

Y. Verhasselt recalled the decision taken in 1997 to split up the Grants Programme into small and large grants. The so-called "small grants" would remain the usual grants of up to US\$ 50,000 and large grants ranging from US\$50,000 to 100,000 would aim to support new high profile innovative scientific programmes. She expressed her thanks to UNESCO and to the US National Science Foundation for their continued support of ICSU's scientific activities.

Considering the financial situation of ICSU on the one hand, and the budgetary difficulties encountered by many countries on the other hand, the Treasurer explained why the Executive Board had endorsed the recommendation of the SFC that the increase in Members' dues during the next triennium (2001, 2002 and 2003) should be 1% per year with the possibility of adjusting this to the inflation rate in 2002 and 2003.

H. Metzger (IUIS) recalled that one of the Recommendations of the Assessment Report of ICSU was for ICSU to focus its expenses and not to fund projects of too wide a nature. M. Petit replied that with reference to the 22%, 46% and 48% of the total available devoted to large grants for 1998, 1999 and 2000 he thought that this was fairly consonant with the recommendation referred to above.

S. Cox (UK Royal Society) questioned the difference in the ICSU budget from 1999 to 2001 (table 5) in the line "Treasury Income" between the 1998 sum of 206 163 US\$ and the budgeted 22 000 US\$ for the four ensuing years: it was explained that this was due to the change in ICSU's investment policy, when the reserve was invested in marketable securities in 1998. S. Cox also questioned the difference in the two lines (income and expenditure) concerning WCRP: it was explained that this was due to the re-evaluation which was applied as of 1999 to the scale of dues for contributing members to WCRP.

A.C.T. North (IUPAB) voiced some concern about what he saw as a squeeze of the funds redirected from ICSU to the Unions through the present Grants System. M. Petit replied that

ICSU needed to devote its money to more specific projects and that this should be taken as a policy decision by ICSU. Moreover, the grant received in the past from ICSU was, for most Unions, only 1% or 2% of their income.

R. Brett (IUGS) asked for more transparency in the allocation of the grants: it was stressed again that one of the major tasks of the new Committee on Scientific Planning and Review would be to reassess the whole system.

The Assembly then agreed to discharge the Treasurer from liability, to set the scale of annual dues to be paid by Members as proposed by the Executive Board for 2001, 2002 and 2003 and to approve the draft budgetary outlines as proposed by the Executive Board for 2000, 2001 and 2002.

## 8. Reports and Proposals of Policy Committees

### a) Finance: Reports from recipients of 1998 large grants

*IUPHAR, IUTOX, IUPAC – Endocrine Disrupters*

A. Fischli gave a detailed account of the joint book published by the International Unions of Pure and Applied Chemistry (IUPAC), of Pharmacology (IUPHAR) and of Toxicology (IUTOX) - all three full members of ICSU. The joint application was awarded US \$ 60,000. Additional, greater funds were obtained from other sources. The Unions were very particular in selecting the authors as well as the referees, and great attention was paid to scientific expertise and also to geographical representation.

This book entitled 'Natural and Anthropogenic Environmental Oestrogens: The Scientific Basis for Risk Assessment', published under ICSU's and the Unions' logos, should be interpreted broadly. It discusses both oestrogenic and androgenic effects of compounds mimicking the naturally occurring hormones, and, in doing so, potentially affecting various hormonal systems.

In the "Conclusions and Recommendations" A.E. Fischli, Th. Godfraind and I.F.H. Purchase, three former Presidents of the Unions involved, point out that science can provide quality controlled information, based on reproducible peer reviewed results and that science can answer at least some of the many remaining questions, but that massive investment in research is required in order to be able to come up with the data so urgently needed for subsequent political debates and decisions.

Use of ICSU Grant: the total grant of \$60,000 was equally distributed between the three Unions. The amount was used uniquely for dissemination of the book and amplification of its contents in events like meetings, workshops and conferences. A total of 1800 copies were sent out. 250 copies were handed over to UNESCO for distribution to each of its national delegations, 260 were shipped to Industry Associations and single companies. The book may be obtained from the IUPAC Secretariat upon request, and the whole publication is accessible on the IUPAC website ([www.iupac.org](http://www.iupac.org)). The IUPAC Secretariat was in charge of the general administration and of financing administrative efforts, editing, printing and shipping of the volume.

A. Fischli thanked ICSU for the grant and IUPHAR and IUTOX for their close collaboration.

*Food Security of Urban and Peri-Urban Systems in Developing Countries*

W.E.H. Blum presented the rationale of food security. Food security, he said, is a complex issue, inter- and multi-disciplinary, including social and economic sciences besides natural sciences. He presented three case studies: a) in Cairo, with large segments of poor population; b) Chennai, large segments of very poor population, and c) Kathmandu, large segments of extremely poor population. Discussions on the above topic concluded that the food system approach is more suitable to analyse food dynamics in a systematic manner. The study clearly demonstrated the need for interdisciplinary collaboration in the area of food security.

Use of ICSU Grant: IUSS/CSFS/IGU benefited from the 1998 large grant of US\$69,000. The money was mainly used to carry out the case studies and workshops. He thanked ICSU for the generosity, which had enabled the Committee carry out work on this project successfully.

*Global Invasive Species Programme (GISP)*

V. Plocq-Fichelet explained that invasion of ecosystems by introduced species is the second greatest threat to biodiversity. They can induce drastic alterations of ecosystem structure and function. It is a cause for enormous economic and sometime human health damage, and the problem is likely to get worse. A number of nations have launched explicit programmes to deal with the issue and it is significant that GISP has received official support from both developed and developing countries. In order to take action, one needs to have a better and complete knowledge on all aspects of the invasive problem and also new tools and new approaches for dealing with invasives. SCOPE, with partners from UNEP, IUCN and CABI (Commonwealth Agricultural Bureau International), embarked on this programme with the explicit objectives of: providing new tools for understanding as well as for dealing with species that become invasive; improving the science but also providing an early warning system; and of developing the necessary legal framework especially through international agreements.

Use of ICSU Grant: the grant from ICSU of US \$80,000 helped them through the first year of operation and also convinced other potential donors to contribute over US \$950,000 to the programme. The project provided an excellent example of the role ICSU could play to both generate new and innovative scientific activities while also serving as a catalyst for wider and longer-term financial support.

b) Freedom in the Conduct of Science (SCFCS)

The Assembly heard an oral report by P. Schindler, Executive Secretary of the Standing Committee on Freedom in the Conduct of Science, supplementing the revised written report distributed at the meeting, in the light of the meeting of the SCFCS on 25 September. The Assembly noted that, although problems concerning the issuance of visas had greatly decreased, these had been replaced by problems of a more general nature. The SCFCS had also been closely involved with the ICSU/CODATA *Ad hoc* Group on Data and Information in working to introduce "fair use" clauses for research purposes in national intellectual property rights legislation.

After a brief discussion of a few visa problems encountered with regard to specific Members of ICSU, P. Schindler reiterated the need to apply early for visas. Non-success in resolving these problems was nearly always the result of late applications.

c) Responsibility and Ethics in Science (SCRES)

K. Evers, Executive Director of the Standing Committee on Responsibility and Ethics in Science, briefly recapitulated the history of this young Committee, which had been created at the last Assembly in 1996. She referred to the slight overlap in mandate with the SCFCS and explained that for this reason joint and parallel meetings of the two Committees were envisaged. The generous support by Norway of this Committee and its Secretariat was noted.

In the discussion which followed, the question was raised as to how to respond rapidly to issues raised, for example with regard to environmental issues, and to the need for the wide dissemination of reports and guidelines: not just to scientists but to society as well.

d) Membership, Structure and Statutes (SCMSS)

L. Lapointe (Canada), Member of the former Standing Committee on Membership, Structure and Statutes (SCMSS), expressed her thanks to the Chairman of the SCMSS, D.A. Bekoe from

Ghana and to the Members of the Committee for the work they had accomplished over the last three years.

She recalled that the Assessment Report of ICSU led to concrete changes in the Statutes and Rules of Procedure of ICSU and that this had been one of the SCMSS' major tasks, which culminated in the work of the Extraordinary General Assembly in Vienna in April 1998. She also briefly recalled the criteria for admission in ICSU and the following proposals for admission were agreed by the Assembly:

*Full National Scientific Members:*

Azerbaijan Academy of Sciences

Research Council of Zimbabwe (Professor F.P. Gudyanga made an oral presentation)

Academi Sains Malaysia (pending the agreement of the Ministry of Science, Technology and the Environment, currently representing Malaysia within ICSU)

*National Scientific Associates:*

Scientific Research Association of Mozambique (AICIMO)

Cameroon Academy of Sciences

*Scientific Union Member:*

International Union for Physical and Engineering Sciences in Medicine (IUPESM)

*International Scientific Associate:*

International Association for Hydraulic Research (IAHR)

## **9. Reports and Proposals of Advisory Committees**

### a) Dissemination of Scientific Information (ICSU Press)

R. Elliott presented a detailed report on the activities of the ICSU Press since the last General Assembly in Washington, D.C. He said that the evolution of the role of ICSU Press from its original conception as a publishing house of ICSU was recognized under the new Statutes by a change in name to Committee on Dissemination of Scientific Information (CDSI) and the authorization to continue to use the imprimatur of "ICSU Press" on appropriate publications and activities.

He informed the Assembly that the last surviving journal in the ICSU Press publishing programme "*BioEssays*" was reviewed in 1997 when the contract for its publication by the Company of Biologists was due to terminate. After lengthy discussion the title was sold to John Wiley and Sons (New York) where it continues publication under the same Editor and with advice from ICSU Press. The revenue from this deal has augmented the ICSU General Fund. ICSU Press received a special grant for three years as a part of the deal.

He reminded the Assembly of the Expert Conference on Electronic Publishing in Science, which had been held in 1996 and the number of recommendations the conference had made. ICSU Press had been charged with the follow-up activities. This programme has been the focus of the committee's work and a number of workshops had been held. Details of these meetings and their recommendations are available on the ICSU Press website: <http://associnst.ox.ac.uk/~icsuinfo/>. CDSI has also been involved with the joint CODATA/ICSU group which was set up to respond to the proposed changes in legislation relating to databases in various national jurisdictions and in WIPO (World Intellectual Property Organization). In addition there had been a number of discussions with representatives of the International STM

Publishers Association to try to understand different points of view in relation to the common interest in improved scientific communication. Jointly with ICSTI and CODATA, the Committee organised one of the forum sessions at the Budapest World Conference on Science entitled 'Sharing Scientific Information'. Although this Session came up with proposals, he was sorry that he could not persuade the drafting committee, which was charged with collating all proposals, to take into consideration proposals from this session.

The Guidelines for Scientific Publishing, intended for small learned societies, had been revised and printed, and copies were made available at the ICSU General Assembly. The Committee also plans to hold another Conference on Electronic Publishing, in collaboration with UNESCO, in 2001 – five years after the original conference, to review the situation and to consult with ICSU family members. He noted with regret that attempts to engage members directly had resulted in a disappointing response.

R. Elliott also reported on the activities of INASP (the International Network for the Availability of Scientific Publications) and said that it aimed at improving worldwide access to scientific information. Following the adoption of the new Statutes, its new Terms of Reference were revised and approved by ICSU Press in 1999. INASP, among other activities, had developed a portfolio of activities in support of African university libraries and some related work in the field of education. On the publishing side, INASP had organized a number of workshops for journals' editors in developing countries and had published advice relating to electronic journals and to book marketing and promotion. It had also created African Journals On Line thus giving the African published scientific journals a presence on the Internet.

Another important initiative had been the creation of INASP Health, which has focused on building a point of reference for health information provider organizations and health librarians. It had expanded the INASP Health Cooperative Network, published the INASP Health Directory and held a number of workshops. Although ICSU Press provides core funding for INASP, additional funding is badly needed to maintain project support without which it will be difficult to run the programme.

b) Science and Technology in Developing Countries (COSTED-IBN)

A joint presentation on COSTED was made by E. Krieger and G. Thyagarajan. E. Krieger presented the objectives of COSTED and outlined its mission and structure. He said that COSTED is making every effort to address the larger needs of society drawing solutions from science and technology. He referred to sections in the Framework for Action which resulted from the World Conference on Science and said that COSTED would follow up on some of those issues identified in the framework, especially on basic human needs. COSTED would prioritize its major activities in developing countries.

G. Thyagarajan presented the state of science and technology in developing countries and COSTED's role in bridging the North-South gap. He referred to reports of COSTED regional secretariats, and to three future programmes, jointly with PCBS on capacity building, with the CEC on IPR issues, and with FASAS on forest fires, which it was hoped would be integrated into the main stream activities. He drew attention to the lack of financial resources which remained a serious concern for COSTED.

c) Environment (ACE)

The Environmental Sciences Officer of ICSU, A. Larigauderie, presented an overview of ICSU activities in the environment. After having briefly reminded Members of the duties and membership of ACE, she spoke about three on-going set of activities: 1) the global change

programmes, 2) the global observing systems and IGOS, and 3) collaboration with UNESCO. She closed her presentation by briefly mentioning new activities.

A. Larigauderie noted that the five global change programmes (IGBP, WCRP, IHDP, START and DIVERSITAS) are becoming more and more interlinked due to the global and interdisciplinary nature of the new scientific questions which need to be addressed, and she gave examples of such collaborations. This, of course, placed increasing demands on the coordinating units - the secretariats and project offices - which are having increasing problems in securing core funding for their activities. ACE was involved in a round of discussions with the Chairs and Directors of these Programmes to elaborate a common strategy to complement public funding by an approach to the private sector.

She described IGOS (Integrated Global Observing Strategy), a new platform for discussion between the space agencies (CEOS), some global change programmes (IGBP, and WCRP), the observing systems (GCOS - Climate, GTOS - Terrestrial, and GOOS - Oceans), as well as the sponsors of these programmes and observing systems (ICSU, UNESCO, WMO, FAO) and IGFA (International Group of Funding Agencies). She noted that ACE has encouraged a dialogue between these partners and IGBP and WCRP in the hope that IGOS will become a useful platform for the scientists involved in these Programmes. She further described the successful

efforts of GCOS in getting the UN Framework Convention on Climate Change to request countries to submit national reports on their climate observing activities, and urged, on behalf of GCOS, ICSU National Members to help in this process.

A. Larigauderie briefly mentioned the collaboration between the World Heritage Committee (WHC) of UNESCO and ICSU on the matter of Kakadu National Park in Australia. ICSU had put together an independent panel of experts, following a request from the WHC, to review some of the scientific concerns related to the impact of uranium mining at Kakadu National Park, a park listed as a World Heritage site.

Two possible new initiatives which ICSU will study with the members of the ICSU family were mentioned: the design of a science agenda for sustainability, and an assessment of the scientific and ethical issues at stake with respect to GMOs

## **10. Common Concerns and Services**

### a) Capacity Building in Science

S. Malcom, briefed the Assembly on activities of the PCBS over the last three years. She informed Members that the major focus of the Programme would be on science education at the primary level, and stressed that the Programme would pay special attention to the education of girls and women in developing countries. A home page had been established and a Conference had been organized prior to the World Conference on Science in Budapest. The outcome was positive with several proposals to continue the expansion and improvement of existing activities including the Teach Science Internet web site and the Science Corps which was still in its initial exploratory stages. Sixteen proposals were made at the Conference and Committee will screen these proposals to prioritize areas of importance at its next meeting.

The Committee would like to collaborate with the Unions and Interdisciplinary Bodies in order to focus on major activities. The proposal from COSTED on developing science communications within developing countries had been put forward to the National Science Foundation for a grant.

S. Malcom thanked the US National Academy of Sciences for their generosity in helping this Programme and explained that due to shortage of space the office which was initially housed at the National Academy of Sciences had moved to the AAAS. She also thanked Wei Yu, who had sent Mr. Zhang on secondment to set up the web page. In her concluding remarks she looked forward to closer cooperation with the ICSU family on this important mission.

### b) Data and Information

The Assembly heard a report from F. Webster, Chairman of the World Data Centres (WDC) and of the ICSU/CODATA *Ad hoc* Group on Data and Information, on the activities of the different ICSU bodies involved in data and information. He informed the Assembly of the action this Group had taken with regard to a proposed Treaty at the World Intellectual Property Organization (WIPO), where the Group had successfully brought the issue of access to data for science and education to the fore. He strongly urged Members to remain vigilant with regard both to this Treaty and to the European Union Database Directive.

## **11. Information and Outreach**

T. Bahmani Fard, Assistant Executive Director, informed the Assembly that a report on ICSU's publications and website was in the GA file. She believed that this was self-explanatory but would be happy to answer questions from the floor. No questions were submitted.

**12. Ratification of EB recommendations on certain ICSU Interdisciplinary Scientific Bodies**

a) Committee on Science in Central and Eastern Europe and the former Soviet Union (COMSCEE)

W. Arber explained that, as the problems which COMSCEE had been set up to address nearly ten years ago were largely being covered by other organizations, the Executive Board had decided to dissolve COMSCEE, subject to ratification by the General Assembly. This was accorded.

The Assembly expressed its deep gratitude to all those who had been involved in COMSCEE over the years.

b) Steering Committee on Genetics and Biotechnology (SCGB)

R. Roberts summarized the first meeting of the Steering Committee of the SCGB. One of the initiatives of the Committee was in the area of Bioinformatics where there were great opportunities but where training was woefully inadequate, particularly in some developing countries. D. Landsman from NCBI (National Center for Biotechnology Institute) had undertaken the preparation of the first tutorial, in collaboration with J. Fassler, and would oversee the preparation of others. The ICSU Grant helped in implementing the tutorial. Other areas where appropriate action was required were in the fields of biological resources, and genetic resources concerning the general area of intellectual property rights. R. Roberts stressed that he felt that science needed and deserved much greater public exposure through the medium of television.

Upon the recommendation of the Advisory Committee on the Environment (ACE) of ICSU, a meeting on GMOs (Genetically Modified Organisms) was held on 27<sup>th</sup> September, prior to the General Assembly, which suggested that ICSU undertake a scientific assessment in the use of genetically modified organisms in the environment. R. Roberts said that there were tremendous activities in this field that ICSU should have taken on, and that it was also important to learn what other countries have done with their on going programmes. It was hoped that a charter or terms of reference would be designed and would focus on appropriate areas. The matter would be discussed at the next meeting and proposals put forward to the Executive Board for approval. While awaiting further action, the President of ICSU proposed a vote of continuation of the SCGB to the General Assembly, which approved unanimously that the Steering Committee work with its present mandate, with the Executive Board maintaining a watching brief over its activities.

c) Committee on Sciences for Food Security (CSFS)

W.E.H. Blum referred to the Study on "Food Security: What have Sciences to Offer?" commissioned by the ICSU Committee on Sciences on Food Security at its first meeting in November 1995. The Study, conducted by the late D. Hall from Kings College, London, identified new research in a complex area of food security, with particular regard to the availability, stability of production and accessibility of food, and to defining specific topics of concern to ICSU bodies and other international organizations. W.E.H. Blum emphasised that this is a unique opportunity to start work in developing countries, based on the comparative advantage of the ICSU family: International Unions with an interest in scientific and technical cooperation and National Members in food insecure countries as partners. He requested that a Panel be set up composed of the existing members of the Committee and selected representatives of ICSU members. The role of the panel would be to develop practical mechanisms to assist

country scientists and technologists to do research and implement solutions to food security problems, thus strengthening national scientific organizations and community projects with practical support and back up from the ICSU Secretariat. He hoped that through National Academies, in-country scientists would cooperate in enabling this Committee to reach its targets.

Funding required for this project over three year period would be \$420,000 and he hoped to find donor organizations very soon in order to maintain the time schedule. There was a lively interaction amongst members present, and IUNS, in particular, was very much in favour of supporting this initiative.

It was unanimously agreed to create a Panel on Food Security and W.E.H. Blum was requested to suggest further names to the Executive Board of ICSU for membership of the Panel.

d) Scientific Committee on Water Research (SCOWAR)

A. Gasith reported on the new focus of SCOWAR: Freshwater and Environmental Change: the ecological consequences of altered hydrological regimes. He said that water, the medium of life, was rapidly becoming the most limiting resource for economic development in the next millennium. Scientists and decision-makers needed to jointly assess our understanding of the capacities and limits of freshwater ecosystems to respond to man-made pressures; and of how to protect the environment and meet human needs. He stressed that the complexity of the pressures, responses and global scope of this problem is beyond the capacity of any single institution to fully resolve. Therefore, scientists and managers are increasingly called upon to provide timely predictions and to suggest more prudent management of water resources.

A. Gasith emphasized that, although there are a number of national and international organizations that address the changes of hydrological regimes and water supplies, no one is effectively addressing the ecological consequences of the changes caused by the intense competition for water among consumer sectors on a global scale. This prompted SCOWAR, at its meeting in April 1999, to specifically address the central issue of the ecological consequences of altered water regimes in the future. The Committee identified as its first priority the preparation of a document for decision-makers that highlights the potential for hydrological changes to affect aquatic ecosystems. He also pointed out the importance of the cooperation with NCEAS (National Center for Ecological Analysis and Synthesis) and the prospect of developing scenarios on the interactions and outcome of man-made hydrological changes and the ecological consequences. It is the responsibility of the scientists to inform decision-makers how to optimize water uses and minimise losses of ecosystem services, and SCOWAR worked along these lines.

Strong support was voiced from members representing COSTED, IUBS, China and Sri Lanka, recognising the importance of water and its quality. COSTED wished to see SCOWAR collaborate with them on water research in developing countries.

At the recommendation of the Executive Board, the General Assembly approved unanimously that SCOWAR continue as the Scientific Committee on Water Research.

**13. Proposals on New Scientific Priorities for ICSU action and reports from fora**

The Assembly heard reports of the six fora on: Issues relating to Scientific Data and Information, BioUnions Education, Food Security, Natural Disaster Reduction, Bioinformatics, and Megacities, which had preceded the Assembly. Brief reports of these are attached as Annex 1.

The business sessions of the National Scientific Members and of the International Scientific Union Members had been mainly devoted to establishing their respective slates for the election of Ordinary Members of the Executive Board. However, one major recommendation was made by the International Scientific Unions' business meeting: that the ICSU Secretariat should

facilitate yearly meetings of appropriate persons from each of the Unions with CCBS (see the Resolutions, Annex 3) in order to improve cooperation.

It was noted that this was the first time that such fora (as specified in the new Statutes) had been held and Members were invited to send any comments and suggestions for these to the Secretariat.

#### 14. Cooperation with Partner Organizations

##### a) Intergovernmental bodies

##### *i. United Nations Educational, Scientific and Cultural Organization (UNESCO)*

H. Moore thanked the President for allowing him to take the floor at the Assembly. He informed the Assembly of the tradition that UNESCO and ICSU regularly review their on-going cooperation on the occasion of major gatherings such as the GA or General Conference of UNESCO. He stressed that it was a time of change for the two organizations. He advised that UNESCO was preparing its 30<sup>th</sup> Session of the General Conference to be held in Paris in October, which would make decisions on its Programme and Budget for 2000-2001. He went on to say that UNESCO delegates gave considerable authority to ICSU with regard to the execution of certain tasks in UNESCO's programme, and the use of significant resources earmarked for those tasks within UNESCO's budget. He suggested that UNESCO and ICSU start to discuss the content of the next framework agreement as soon as possible. He informed participants of the direct cooperation between the Basic Sciences Division of UNESCO and ICSU's Scientific Unions, scientific committees and associates. He mentioned some of the on-going joint programmes: Lectureship/Professorship Programme, Fellowship Programme, DIVERSITAS, WCRP, GCOS, GOOS and GTOS and called for increased coordination between UNESCO's intergovernmental programmes on the environment (e.g. IHP) and the major international programmes of ICSU, especially IGBP. He invited ICSU on behalf of UNESCO, to be a member of a proposed standing committee for the WCS follow-up that UNESCO would set up immediately after its General Conference. He reported on a universal call for action at the WCS for science education and informed the Assembly that UNESCO would meet with the PCBS to define a programme of collaboration. He said that whether the World Conference on Science was finally judged a success would depend on ICSU and UNESCO working together to ensure that the hopes and expectations expressed in Budapest were turned into reality. He welcomed the new Executive Director of ICSU and said that he looked forward to working with him in the future. He finished by thanking the ICSU Secretariat for all its valuable work during the WCS in Budapest.

##### *ii. Other intergovernmental bodies*

The Assembly noted the ongoing cooperation with other intergovernmental bodies, notably the World Meteorological Organization through the WCRP and the three Global Observing Systems and the World Health Organization, where the ICSU Treasurer, Y. Verhasselt, acted as liaison.

##### b) NGOs

##### *i. International Social Science Council (ISSC)*

K. Pawlik, President of ISSC, gave a brief description of the ISSC, its history and programmes and referred to the co-sponsorship by ISSC and ICSU of the IHDP. He stressed the good

cooperation between the ISSC and ICSU and reiterated the willingness of the ISSC to carry this cooperation further and to be fully involved in the follow-up to the World Conference on Science.

*ii. Third World Academy of Sciences (TWAS)*

M. Hassan, Executive Director, TWAS, explained his Academy's programmes. He went on to inform participants that the joint UNESCO/TWAS/ICSU/CSC Lectureship/Professorship Programme was very successful. He suggested that collaboration between ICSU's COSTED and TWAS should be strengthened by launching new joint programmes and he said that he looked forward to discussing this proposal and in particular the WCS follow-up with the new Executive Director of ICSU.

iii. *International Foundation for Science (IFS)*

J. Gaillard, IFS representative, gave a brief presentation on how IFS functions. He explained that IFS was founded in 1972 and that its members are from developing and developed countries. It has over 1000 scientific advisers and became an International Scientific Associate of ICSU in 1993. He informed participants that ICSU and IFS have many programmes of a similar nature and hoped that measures would be taken to improve relationships between the two organizations.

iv. *InterAcademy Panel (IAP)*

W. Arber informed the Assembly that ICSU had good connections with the IAP and that a representative from the EB attended their meetings as an observer. Future collaboration between IAP and ICSU would increase.

**15. Elections of Officers and Representatives of Scientific Union and National Scientific Members on the Executive Board**

The following is the result of the elections for Officers and Ordinary Members of the Executive Board:

**Officers**

President	H. Yoshikawa (Japan)
President-Elect	J. Lubchenco (USA)
Vice-President for Scientific Planning and Review	J.G. Tundisi (Brazil)
Vice-President for External Relations	H. Kleinkauf (Germany)
Secretary General	H.A. Mooney (USA)
Treasurer	Y. Verhasselt (Belgium)

(Past President) W. Arber (Switzerland))

**Ordinary Members**

Representing Union Members:

R. Brett	IUGS
A. Fischli	IUPAC
J.C. Mounolou	IUBS
D.A.D. Parry	IUPAB

Representing National Members:

Qian Yi	China: CAST
L. Lapointe	Canada
G. Mehta	India
M. Yousry Moursy	Egypt

**16. Secretariat**

H.A. Mooney gave a brief overview of the role and functioning of the Secretariat and reminded Members of the extremely small number of staff employed and the difficulties encountered over

the last few years. He thanked each member of the Secretariat for their hard work and commitment since the time of the last Assembly and said he looked forward to a brighter future.

**17. Adoption of Recommendations and Resolutions of the General Assembly**

The Resolutions of the 26th General Assembly as adopted are attached as Annex 3.

**18. Date and Place of 27th General Assembly and next Meetings of Executive Board**

The Assembly noted that two invitations had been received to host the 27th General Assembly in 2002: from Brazil and from China: CAST. In the light of these two proposals, the representative of CAST announced their decision to modify their invitation so as to host the ICSU Assembly in the year 2005 in China. Thus the invitation from Brazil was unanimously accepted. It was expected that the Assembly would take place in September 2002. The Assembly noted with appreciation the revised invitation from CAST for the year 2005 and requested that this invitation be submitted to the 27th General Assembly for decision as required by the Statutes.

**19. Any Other Authorized Business**

There being no other business, the President thanked the local organizers of the meeting and the ICSU Secretariat for all their work in ensuring that the Assembly's deliberations could reach a successful conclusion and declared the Assembly closed.

**Annexes:**

- Annex 1: Symposia and Fora reports
- Annex 2: List of Participants
- Annex 3: Resolutions of 26th General Assembly