



**ICSU**

International Council for Science

strengthening international science for the benefit of society

# ICSU and Sustainable Development: 1991 - 2006 and beyond

From ASCEND 21 to CSD

*Celebrating 75 years: 1931-2006*

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## **Injecting science into policy discussions**

A key role for ICSU is to inject the scientific dimension into policy discussions at the global level, particularly (but not only) within the UN system. This is a central element of ICSU's mission to promote international science for the benefit of society. In this role ICSU's engagement with all scientific disciplines and all regions of the world allows it to represent global science with institutional credibility and with scientific authority – the more so because of its independence of political and commercial interest.

This credibility and authority enable ICSU to collaborate with, for example, UN bodies such as WMO, UNEP and UNESCO in organising international research programmes. Equally, ICSU's credibility and authority are at the heart of its efforts to influence policy in the UN system and elsewhere.

This brief outline of ICSU's work on sustainable development since the early 1990s illustrates some of the means it has available to impact policy.

## **ASCEND 21 and the 1992 Rio conference**

The UN Conference on Environment and Development (UNCED), held in Rio de Janeiro, Brazil, in June 1992, was in many ways the culmination of a process of growing concern about global environment problems and a turning point for public awareness of the issues surrounding sustainable development. Even if not all its promises have subsequently been fulfilled, it put sustainable development irrevocably on the policy agenda and provided some clear goals against which to judge future progress. Underpinning this was a series of interactions between the worlds of international science and international policy.

The UN formally invited ICSU, which already had its established research programmes on environmental issues, to act as principal scientific adviser to the dedicated secretariat tasked with the preparations of the Rio conference. This entailed ICSU's participation in a large number of official and unofficial preparatory meetings. In addition, the ICSU responded by convening, in November 1991, a conference to define the Agenda of Science for Environment and Development into the 21<sup>st</sup> century (ASCEND 21). In so doing, the Council used its extensive networks to link with many national and international scientific bodies and secure the participation of key individuals, representative of informed scientific opinion, from 70 countries. The outcome, as documented in the highly-cited, ASCEND 21 Report, committed ICSU to contribute to the UNCED follow-up, both in terms of continued development of the scientific agenda and in terms of ensuring the incorporation of science into policy discussions.

The formal action plan that was agreed by governments at the Rio conference was called Agenda 21. A wide-ranging document, it included several chapters to which ICSU had provided substantive input, including specific chapters on science for sustainable development and the role of the scientific and technological community. Overall the outcome of UNCED overlapped considerably with the positions taken at ASCEND 21. Given the synergies between the two processes, this was to be expected; but it confirmed ICSU's ability to impact the policy agenda. Agenda 21 also confirmed the status of the scientific community as one of the nine 'Major Groups' that should be consulted with regards to development issues (see ahead, re. CSD).

## **Science after Rio**

In order to improve scientific information for policy making in the post-UNCED era, it was recognized that observations of the atmosphere, the oceans and the land had to be developed in a more systematic and holistic manner in order to accurately monitor the general state of the globe. To this end, ICSU formed partnerships with several UN bodies to develop the three Global Observing Systems – climate (GCOS), the oceans (GOOS) and terrestrial (GTOS)l.

At the same time ICSU stepped up its support for international research collaboration on global environmental change. In addition to continued sponsorship of the International Geosphere-Biosphere Programme (IGBP) and the World Climate Research Programme (WCRP), ICSU partnered the International Social Science Council (ISSC) in sponsoring the International Human Dimensions of Global Environmental Change Programme (IHDP). Then in 2000, it joined several of its own members and other sponsors, in providing additional support to DIVERSITAS, an international programme of biodiversity science.

These international interdisciplinary research efforts have made a major contribution to reducing scientific uncertainties in relation to the changes affecting life support systems on Earth. The results from the programmes have been highly policy relevant, feeding directly into assessment

bodies such as the Intergovernmental Panel on Climate Change (IPCC) and, hence, the Framework Convention on Climate Change (UNFCCC) and the Kyoto Protocol.

This new scientific knowledge was also beneficial to the work of the UN Commission on Sustainable Development (CSD) which had been established after the Rio conference as the main intergovernmental mechanism to review performance of Agenda 21 implementation.

## The 2002 World Summit on Sustainable Development

Ten years after the Rio conference, in August 2002, the UN organised the World Summit on Sustainable Development in Johannesburg, South Africa. Once again this was a high profile event and was attended by Heads of State from all over the world. ICSU, in partnership with the World Federation of Engineering Organisations, was invited by the UN to take the lead in marshalling input from the science and technology (S&T) community. This was the first time that the S&T community and other selected "Major Groups" (see ahead, re. CSD) had been directly involved in developing a world summit agenda, normally the exclusive preserve of governments. ICSU, and its partners, prepared and submitted reports with recommendations for consideration by governments as part of the formal summit process.

In the run-up to the Johannesburg conference ICSU worked with partners in organising a series of eleven regional workshops on science and technology for sustainable development. The Council also published a 'rainbow series' of ten reports on specific aspects of science for sustainable development, which constituted important background material for the discussions; and, after the Summit, a final, summary report highlighting the role of S&T. At the Summit itself, ICSU organised a strong science presence at the major sessions, to underline the importance of the scientific dimension for sustainable development and particularly for the 'wehab' areas: water and sanitation, energy, health and the environment, agricultural productivity, and biodiversity and ecosystem management. ICSU also led a parallel forum on science, technology and innovation for sustainable development, at the behest of the South African Government and in collaboration with the UN.

All this constituted a major investment of effort by ICSU to integrate science and technology into the sustainability agenda – scientific knowledge being essential both for understanding the parameters of sustainability and for delivering strategies to achieve sustainability. By the end, building on the recognition of science in Agenda 21, the Secretary-General of the Summit acknowledged that 'science, technology and innovation must be brought to bear on sustainable development and policy decisions in many of the areas discussed during WSSD'.<sup>1</sup> The essential roles of science and technology in moving towards sustainable development are clearly recognized in the Johannesburg Plan of Implementation adopted by WSSD. ICSU, and a number of intergovernmental and non-governmental partners, signed the Ubuntu Declaration, which called for a greater global emphasis on education in reaching sustainable development goals and stressed the need to integrate a sustainable development focus into the curriculum at all levels.

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<sup>1</sup> Nitin Desai, Foreword to *Science and technology at the World Summit on Sustainable Development* (ICSU Series on Science for Sustainable Development No 11, 2003)

### Funding for ICSU's contribution to the Johannesburg Summit and the CSD

ICSU successfully sought grant funding from several Foundations (Packard, \$500k; Rockefeller, \$30k; UN Foundation, \$35k) to support activities, including the recruitment of additional short-term staff, related to the World Summit on Sustainable Development. The subsequent input to CSD has been supported using 'core' ICSU funds and additional support from the US National Academy of Sciences. This has allowed for the recruitment of a Science Programme Officer and a part-time Senior Advisor.

## Commission on Sustainable Development (CSD)

As part of the efforts to accelerate implementation of Agenda 21, through the Johannesburg Plan of Implementation, the UN General Assembly, at its first session following WSSD, decided to strengthen the Commission on Sustainable Development (CSD). Its main role as the global watchdog for monitoring progress towards sustainable development was confirmed and a new system of two-year cycles of work was introduced. This provides for a more thorough review of selected topics during the first year of a cycle and for more time to develop policy recommendations related to these topics, to be agreed upon in the following year at the "policy session".

The second innovation aimed at strengthening CSD concerns the participation of nine, so called, 'Major Groups'<sup>2</sup> that represent key sectors of civil society, and business and industry. These groups are now invited to participate in the work of the CSD alongside governments and intergovernmental organisations. ICSU and the World Federation of Engineering Organisations jointly organise the Major Group for the Scientific and Technological Community. In this role, ICSU serves as a conduit via which the CSD accesses international scientific expertise. The role also gives ICSU a vantage point from which to comment incisively on how the political resolutions of Rio and Johannesburg are leading to concrete outcomes, and to highlight where delivery falls short of expectation.

At its first session after WSSD, the CSD agreed on a ten-year programme of work, including five two year cycles, with each cycle focusing on a cluster of interrelated topics. During the cycle 2004 and 2005, CSD-12 and 13 focused on the topics of freshwater, sanitation and human settlements. During 2006-07, CSD-14 and 15 are focused on energy, air pollution/atmosphere, climate change and industrial development. The scientific community has an important contribution to make on each of these topics.

One of the most important features of involving the nine Major Groups fully in its work is the possibility for each Major Group to contribute to the official documentation prepared for CSD sessions. Thus, the Scientific and Technology Community has submitted discussion papers to the two Review Sessions (CSD-12 and CSD-14), as well as proposals on future policies to CSD-13.

In addition, ICSU has been using the CSD meetings as an opportunity to organize a series of events to foster more communication among the Major Groups, outwith the formal governmental

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<sup>2</sup> The nine Major Groups include: Women, Children and Youth, Indigenous People, Non-governmental Organizations, Local Authorities, Workers and Trade Unions, Business and Industry, Farmers, Scientific and Technological Communities.

processes. Following a recommendation from the Advisory Group on S&T for Sustainable Development<sup>3</sup> in 2005, ICSU is exploring how to develop an effective ongoing mechanism for 'multi-stakeholder' dialogue on priorities for scientific information and technological innovation related to sustainable development.

## The future

"Good science is necessary for good decision-making and policy development at the local, national and international levels". This is one of the key messages that ICSU communicated to the World Summit on Sustainable Development in 2002 and it is fully integrated into the Council's future strategy.

### *Strategic Goal, 2006-2011*

*to ensure that science is integrated into policy development at the international and national level and that relevant policies take account both of scientific knowledge and the needs of science [ICSU Strategic Plan, 2006-2011].*

The example described here concerns injecting science into the UN summits and commissions focused on sustainable development. ICSU and its Interdisciplinary Bodies play an important role also in providing scientific input to international conventions pertinent to environmental protection and sustainable development, such as the UN Conventions on Climate Change and Biodiversity, and to other intergovernmental fora, such as the UNEP Governing Council. ICSU was an institutional partner in the Millennium Ecosystem Assessment, which involved thousands of scientists across the World in generating a comprehensive map of the status of the Earth's ecosystems, and was published in 2005. A major challenge for the future will be ensuring that the outcomes of this very rigorous assessment are integrated into future scientific and policy agendas.

## Conclusion

While the specific impacts of ICSU's participation in these UN summit meetings and related policy fora can sometimes be difficult to assess, the value of these efforts is as much about the process itself, as it is about the immediate outcomes of the process. By continuing to engage in discussions among representatives of governments, industry, and civil society, ICSU is helping to build new bridges of trust and understanding with many communities that traditionally have little interaction with the scientific establishment. The scientific community gains a better understanding of the needs, concerns, and priorities of different societal stakeholders; and in turn, these various stakeholders gain an appreciation of the fact that ongoing scientific research and technological innovation are critical parts of the equation for success in meeting the shared goals of sustainable development.

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<sup>3</sup> The Advisory Group was convened by three international scientific organizations: the International Council for Science (ICSU), the Academy of Science for the Developing World (TWAS), and the Initiative on S&T for Sustainability (ISTS). Copies of the full Advisory Group report are available at [www.icsu.org](http://www.icsu.org).



## ICSU Mission Statement

In order to strengthen international science for the benefit of society, ICSU mobilizes the knowledge and resources of the international science community to:

- Identify and address major issues of importance to science and society.
- Facilitate interaction amongst scientists across all disciplines and from all countries.
- Promote the participation of all scientists—regardless of race, citizenship, language, political stance, or gender—in the international scientific endeavour.
- Provide independent, authoritative advice to stimulate constructive dialogue between the scientific community and governments, civil society, and the private sector.

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