

Science and Technology for Rio+20



ICSU as co-organising partner for the Science and Technology Major Group

What is ICSU?

The International Council for Science (ICSU) is a non-governmental organisation representing the international science community. With a global membership of national scientific bodies (120 members representing 140 countries) and international scientific unions (31 members representing 31 different disciplines), ICSU is uniquely placed due to its global coverage and interdisciplinary breadth.

Rio+20 and ICSU:

The United Nations Conference on Sustainable Development (Rio+20) will take place 20-22 June 2012, in Rio de Janeiro, Brazil. A series of global and regional preparatory meetings will take place over 2010-2012 in the run up to the conference. Alongside governments, there are nine Major Groups (civil society stakeholder groups) that will participate in this process. ICSU is co-organising partner for the Scientific and Technological Community Major Group, with the World Federation of Engineering Organizations (WFEO).

ICSU's objectives for Rio+20:

- To highlight the urgent need for greater action on sustainable development.
- To ensure that policy recommendations from Rio+20 integrate the best available knowledge from the natural, social and engineering sciences.
- To emphasise that strengthening coordination and support for science and technology will be essential for enhancing sustainable development.

Strengthening International Science for the Benefit of Society

Key Issues

for the science and technology (S&T) community:

- New scientific evidence indicates that humanity has reached a point in history at which a prerequisite for development – the functioning of the Earth system as we know it – is at risk. Human induced global environmental change, including climate change, is occurring at an increasing rate and intensity.
- Fundamental changes in the human drivers affecting the Earth system are urgently needed, as are actions to enhance the resilience and decrease the vulnerability of human communities.
- Natural sciences, social sciences, humanities, engineering and technology have **a fundamental role to play**: developing systems of knowledge, defining targets, implementing solutions and monitoring progress for the integrated social, economic and environmental challenges of sustainable development.
- Commitments are needed to **large-scale investments** in targeted transdisciplinary research for sustainable development.
- **Strengthening science-policy links** is essential in efforts to improve the institutional framework for sustainable development. Science advisory mechanisms should be built into decision-making at national, regional and global levels.
- **Cooperation** between the S&T community and governments, intergovernmental bodies, civil society and the private sector must be improved. Research agendas should be defined through broad-based, participatory approaches involving those in need of scientific information.
- **Public access to data and information** and participation in decision-making processes is crucial.
- **Science education and capacity-building** are essential, especially in developing countries.
- **At Rio+20 governments should recognise, analyse and enhance the crucial relationship between policy-making and science, technology and innovation.**
- **Rio+20 should be a fundamental milestone in the development of a new contract between science and society.**

www.icsu.org/rio20

ICSU Activities for Rio+20

ICSU-UNESCO Regional Science and Technology Workshops

Five regional workshops (for Asia and the Pacific, Latin America and the Caribbean, Africa, the Arab States, and Europe) were held in 2011. At the workshops natural scientists, social scientists and engineers from across each region prepared joint positions and concerted inputs for the regional Rio+20 preparatory processes, in collaboration with high level policy-makers and representatives of other Major Groups. *The regional workshops were organised by ICSU and UNESCO, except the Europe workshop which was organised by the European group of ICSU National Members. All workshops were held in cooperation with WFEO, ISSC and other regional stakeholders. To download reports and recommendations, see: www.icsu.org/rio20/regional-workshops.*

Planet under Pressure: New knowledge towards solutions

This major international interdisciplinary science and policy conference will take place in London, 26-29 March 2012. It will link global environmental change science in a two-way engagement with a wide range of other stakeholders involved in delivering enhanced stewardship, including senior policy-makers, industry leaders, NGOs, development agencies and the media. Together the conference participants will explore options, obstacles and opportunities for sustainable development. The outcomes of the conference will be presented at Rio+20. Planet under Pressure is jointly organised by IGBP, IHDP, DIVERSITAS, WCRP, ESSP and ICSU. For more information, see: www.planetunderpressure2012.net.



Policy Briefs for a Planet under Pressure

Nine Rio+20 policy briefs have been prepared by the scientific organisers of the Planet under Pressure conference. Themes include Water Security, Food Security, Energy Security, Governance, Biodiversity, Well-being, and Health. To download the policy briefs, go to: www.icsu.org/rio20/policy-briefs.



Forum on Science, Technology and Innovation for Sustainable Development

This Forum will be held just prior to the Rio+20 conference in Rio de Janeiro 11-15 June 2012. It will provide a space for interdisciplinary scientific discussions, and dialogue between scientists, policy-makers, Major Groups and other stakeholders. Key messages from the Forum will be reported to the Rio+20 conference, to

highlight the urgent need for action on sustainable development and the role that Science, Technology and Innovation should play. *The Forum will be held in partnership with UNESCO, WFEO, ISSC, the Brazilian Ministry of Science, Technology and Innovation, and the Brazilian Academy of Sciences. See: www.icsu.org/rio20/science-and-technology-forum.*

Mobilising ICSU National and Union Members

ICSU aims to encourage, facilitate and coordinate the role of its members in regional preparatory work and in national delegations at regional and global preparatory meetings, so that coordinated messages from the science community can be brought to Rio+20 through numerous avenues.

Future Earth, Visioning and the Grand Challenges

A new 10-year interdisciplinary science initiative: *Future Earth - research for global sustainability* will be launched at ICSU's Forum on Science, Technology and Innovation at Rio+20. *Future Earth* aims to work with policy-makers and other stakeholders to deliver the knowledge that societies will need to meet their sustainable development goals in the coming decades, and it will provide an overarching interdisciplinary framework for mobilising and coordinating global research efforts in the wake of Rio+20. *Future Earth* is a joint activity of ICSU, ISSC, UNU, UNEP, UNESCO and the Belmont Forum. For more information, see: www.icsu.org/future-earth.

