

New contract between science and society critical for ensuring sustainability

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Ensuring a sustainable future in the face of inter-connected, human-induced challenges facing the Earth system urgently requires new knowledge and a new relationship between science and society, according to leading scientists gathered in Rio de Janeiro for the Forum on Science, Technology and Innovation for Sustainable Development.

"Scientific evidence shows convincingly that our way of development is undermining the [resilience](#) of our planet," said Yuan Tseh Lee, President of the International Council for Science (ICSU). "We must find a different path towards a safe and prosperous future. With all the knowledge and creativity we have, it is absolutely possible. But we are running out of time. We need real leadership, practical solutions, and concrete action to set our world on a sustainable path."

The interconnected challenges facing the [Earth system](#), which are on the negotiating table in Rio, were hotly debated at the Forum. Five hundred scientists from over seventy-five countries debated themes varying from 'Human wellbeing and population trends' to 'Food, water and energy security', and from 'Urban environment and wellbeing' to 'Indigenous knowledge'. The objective of the Forum was to present the latest scientific evidence around [global environmental change](#) and identify ways to strengthen the contribution of science to [policy decisions](#) that ensure a more equitable and [sustainable future](#).

There was broad agreement amongst participants that we are living in a time of unprecedented global environmental, social, financial, geo-

political, and [technological challenges](#). As a result, there is renewed pressure for science to be more relevant and effective at informing policy and implementation.

There is an opportunity for a new contract between science and society to inform policy related to sustainable development and build societal resilience to environmental risks, said participants. Scientists need to engage directly with society to ensure shared understanding of the new realities shaping our world, and help translate knowledge into action for sustainable development. A two-way dialogue between science and society is needed, to ensure research priorities are informed by societal needs.

This will require nothing short of a new paradigm in the way that science engages with society.

The Forum, co-organized by ICSU with several partners, is the final stage in an almost two-year process that brought together scientific evidence to inform negotiations at next week's United Nations Sustainable Development conference popularly known as Rio+20.

The Forum looked at the greatest challenges facing our planet's carrying capacity: how to secure food and water supplies for the global population, how to provide energy in a green economy, how to adapt to a world of greater risk from climate change and disaster, how to ensure urban wellbeing and sustainable livelihoods which are more equitable and how to rethink social and economic models.

Responding to these challenges, a new, 10-year global sustainability research initiative was launched at the Forum. 'Future Earth', scientifically sponsored by an alliance of international partners from global science, research funding and UN bodies, will provide a cutting-edge platform to coordinate scientific research which is designed and

produced in partnership with governments, business and, more broadly, society.

This interdisciplinary initiative is jointly established and scientifically sponsored by an alliance that includes the International Council for Science (ICSU), the International Social Science Council (ISSC), the Belmont Forum, the United Nations Environment Programme (UNEP), the United Nations Educational, Scientific and Cultural Organization (UNESCO), the United Nations University (UNU), and strongly supported by the World Meteorological Organization (WMO).

"The scientific evidence for action is clear and stark. Our only options are to mitigate, adapt and thrive," said Lee. "New knowledge from science must play a critical role in finding solutions through integrated research, holistic systems-oriented thinking, and a stronger commitment on behalf of science to communication, education and engagement. Initiatives like Future Earth are a critical step in the right direction," said Lee.

Provided by International Council for Science

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