



PLANET UNDER PRESSURE

2012 MARCH 26-29
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NEWS RELEASE

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*Planet Under Pressure organizers and experts are available for advance interviews.
The policy briefs in full are available for media preview at <http://bit.ly/u1DIIV>*

U.N. Overhaul Required to Govern Planet's Life Support System

*To avert environmental disaster, scale of reform
of international organizations rivals post-WWII era;
3,000 delegates at Planet Under Pressure scientific conference
in March to provide major recommendations to Rio+20 Summit*

Reducing the risk of potential global environmental disaster requires a “constitutional moment” comparable in scale and importance to the reform of international governance that followed World War II, say experts preparing the largest scientific conference leading up to next June’s Rio+20 Earth Summit.

Stark increases in natural disasters, food and water security problems and biodiversity loss are just part of the evidence that humanity may be crossing planetary boundaries and approaching dangerous tipping points. An effective environmental governance system needs to be instituted soon, according to organizers of the huge “Planet Under Pressure” conference in London March 26-29, 2012.

As policy-makers gather in Durban, South Africa, for the 17th Conference of the Parties to the UN Framework Convention on Climate Change, the Planet Under Pressure consortium today released the first five of nine policy briefs on key issues. The briefs deal with biodiversity and ecosystem services, food and water security,



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interconnected risks and solutions, and a topic common to all: reforming environmental governance from the local to the global level.

Prof. Frank Biermann of VU University Amsterdam in The Netherlands, director of the Earth System Governance Project of the International Human Dimensions Programme (IHDP) wrote the policy brief on institutional reform with 29 fellow social scientists and governance experts around the world.

Says Dr. Biermann: “Societies must change course to steer away from critical tipping points that lead to rapid and irreversible change. This requires a fundamental transformation of existing practices. The international governance system must change.”

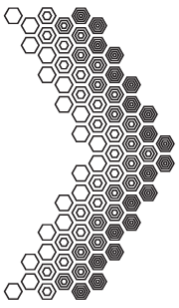
“In the 1940s, large parts of the world lay in ruins amid fears of further political conflict. International systems were inadequate to deal with the global challenges then. Decision-makers created in very short time new organizations and global standards, including the U.N., the General Agreement on Tariffs and Trade (later the World Trade Organization), and others.”

“The current destruction of the Earth’s natural systems warrants today a similar ‘constitutional moment’ to revise and transform the architecture of global governance.”

Says IHDP executive director Anantha Duraiappah: “The governance systems created post-war have helped resolve conflict, promote globalization and spur unprecedented economic growth. Many societies have progressed in the past decades with an increase in well-being. The magic question is can this continue? As the world continues to become ever more interdependent we need new forms of governance.”

Improving international co-ordination is essential to deal not only with global-scale environmental and consequent security problems but to regulate proposed technological fixes, including nanotechnology, biotechnology and climate engineering.

Global-scale geo-engineering proposals to address climate change are too far-reaching and potentially dangerous to be left to the discretion of national governments or



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corporations, Dr. Biermann says. Multilateral frameworks are instead urgently needed.

“Tinkering with the existing international governance system is unlikely to improve matters sufficiently,” he says. “Fundamental reform is required for effective Earth-system governance.”

Among several recommendations:

Strengthen the accountability and legitimacy of international organizations by, for example:

- * Upgrading the UN Commission on Sustainable Development to a Council of the UN General Assembly, to handle emerging issues such as water, climate, energy and food security, natural disasters and the linkages among these issues;
- * Elevating the Nairobi-based UN Environment Programme to the status of the World Health Organization and International Labour Organization – a step that would give it greater authority, more secure funding and facilitate the creation and enforcement of international regulations and standards;
- * Create special majority voting in decision-making systems when earth-system concerns are at stake.

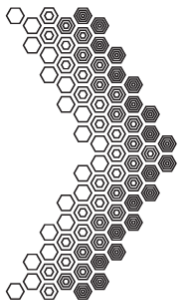
Also recommended:

- * Strengthening national accountability and legitimacy with, for example, mandatory disclosure of accessible, comprehensible and comparable data about government and corporate sustainability performance; and
- * Allowing discrimination in world trade law between products on the basis of production processes to encourage investments in cleaner products and services. Such discrimination should be based on multilateral agreement to prevent protectionism.

Tools available



And their Earth System Science Partnership



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“We have tools to address our challenges effectively, but we’re quickly running out of time to put them in place,” says Planet Under Pressure conference co-chair Dr Mark Stafford Smith, science director of the Commonwealth Scientific and Industrial Research Organization’s Climate Adaptation Flagship, in Canberra, Australia.

The international Planet Under Pressure conference will be the largest gathering of global change and sustainability scientists prior to the Rio+20 Earth Summit next June in Rio de Janeiro. The 3,000 global experts expected at the London conference will provide a “State of the Planet” assessment, discuss concepts for planetary stewardship and societal and economic transformation, and prescribe a recommended route to global sustainability.

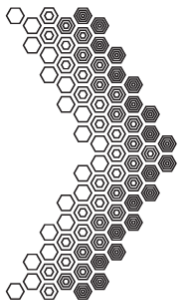
Sponsored by the International Council for Science (ICSU), the conference is being organized by a consortium of four leading global research programmes: International Geosphere-Biosphere Programme, DIVERSITAS-the international programme on biodiversity science, International Human Dimensions Programme on global environmental change, the World Climate Research Programme -- collectively known as the Earth System Science Partnership.

Despite more than 900 environmental treaties coming into force in the past 40 years, human-induced environmental degradation continues, reaching levels that prompted ICSU’s blunt warning in 2010 that “humanity has reached a point in history at which a prerequisite for development – the continued functioning of the Earth system as we know it – is at risk.”

Authors of the policy briefs note recently published contentions that humanity has already pushed Earth past limits on climate change, biodiversity loss and nitrogen use -- three of nine proposed “planetary boundaries” that must be respected for societies to grow and prosper.

Biodiversity

The brief on biodiversity and ecosystem services notes that despite recent efforts to reduce the rate of loss of biodiversity and ecosystem services, the number of plant and animal species threatened with extinction continues to rise, forests and mangrove swamps are in sharp decline, and vast areas are increasingly dominated by a few



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successful species.

The brief offers new information detailing the fast-growing number of pollution-related oxygen depletion zones killing fish in coastal marine ecosystems -- now more than 500 worldwide.

Consequences include the diminished ability of ecosystems to act as a buffer against extreme events such as floods, fires, disease outbreaks and storm surges. "If the global community continues on its current path, the declines in biodiversity and ecosystem services will impede future efforts towards sustainable development pathways," the authors warn.

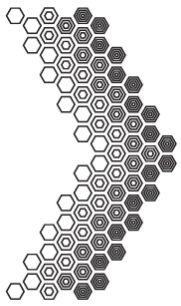
They call for a stronger inclusion of the multiple values of biodiversity and ecosystems into policy and management decisions, e.g. by measuring progress beyond traditional indicators such as the GDP. The concept of 'inclusive wealth' includes all forms of capital – natural (land, water, soil, biodiversity and ecosystem services), social (institutions, social networks) and human (education, health, skills) -- as well as financial and manufactured.

"While current trends in biodiversity and ecosystem services are sharply and dangerously negative, the right actions -- developed and implemented promptly -- can restore a biologically rich and ecologically viable planet." stresses Dr. Anne Larigauderie, executive director of DIVERSITAS and co-author of the brief.

Food security

Led by Oxford University Prof. John Ingram, authors of the food security brief say that despite a marked increase in global food production over the past half century, nearly one billion people still have too little to eat, and a further billion lack adequate nutrition. It showcases a new indicator of food security -- children under the age of five suffer stunted growth due to inadequate food -- and offers a map showing that in much of the world, the problem affects 40 per cent or more of children.

While the brief calls for the urgent development of policies and technologies for increasing food production in a more sustainable manner, it highlights the need for a



food system that recognizes that improving access to food is the key issue to reduce food insecurity, rather than concentrating solely on increasing production.

“The challenge of feeding the world efficiently and equitably is considerable, but not insurmountable,” the authors say. “Institutions operating effectively at multiple levels will be at the centre of sustainable food systems; these will need to be flexible, promote appropriate use of innovative technologies and policies, and recognize the increasingly important role of non-state actors in enhancing food systems. Above all, there is need for a strong focus on resilience, equity and sustainability.”

Water security

As global population has tripled in the past century, water use has increased six-fold, and the quality of water resources has been degraded through human activities such as excessive use of agriculture-related chemicals and the release of untreated sewage and industrial wastewater.

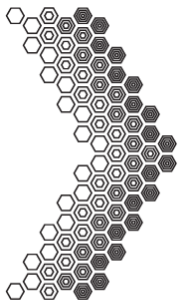
Combined with growing economies and poor water management, unprecedented pressure is being placed on freshwater resources.

The policy document recommends that water be given high priority in international decision-making, and that compromises between use and preservation be made on the basis of science rather than political or economic lobbying. It also calls for laws and financial mechanisms to ensure sustainable water supplies.

“We simply cannot continue to use water as wastefully as we have in the past,” says lead author Janos Bogardi, Executive Officer of the Joint ESSP Global Water Systems Project. “Water must be given the prominence it deserves on the global agenda; decisions should be considered through a ‘water lens’.”

Interconnected risks and solutions

The financial crisis highlights our vulnerability as a direct result of our growing interconnectivity. The brief on interconnected risks and solutions underlines the requirement for an integrated approach to a suite of urgent global challenges: poverty alleviation; the financial crisis; economic development; political



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stability; pollution; food, water and energy security; health; wellbeing; climate change; ocean acidification; and loss of biodiversity to name just some.

Systemic risk management should be a priority for international organizations.

The experts call for an end to the fragmented approach to interconnected global challenges and suggest establishing an international high-level consultative body on global sustainability. Beneath this, they suggest an Intergovernmental Panel on Sustainable Development to ensure scientific coherence and build on existing assessments for example the Intergovernmental Panel on Climate Change and Intergovernmental science-policy Platform on Biodiversity and Ecosystem Services, and to ensure scientific coherence. This would produce a regular 'State of the Planet' assessment that includes socio-economic indicators.

They also call on societies to "build resilience and prepare for unavoidable changes."

Professor Sybil Seitzinger, Executive Director of the International Geosphere-Biosphere Programme say, "The great acceleration in human activity, seen largely since the 1950s, has committed the Earth system to substantial change, not only this century but also for hundreds and even thousands of years to come."

Lidia Brito, Director of Division, Natural Science Sector, UNESCO, and co-chair of the Planet Under Pressure conference concludes: "The need for a new way of approaching our common environmental challenges is increasingly obvious. Last year the world endured some 950 natural catastrophes, almost all of them weather-related, according to insurance industry figures -- a record some 50 per cent above the annual average for such events for the previous three decades."

"We can no longer view the global economic system and the political systems that shape it in isolation from the Earth system. The time has arrived for people to become planetary stewards."

Future policy briefs will offer insights and recommendations on the green economy, energy security, health, and human well-being.

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The Planet Under Pressure conference's chief scientific advisor, Elinor Ostrom, has commissioned a series of policy briefs relevant to Rio+20. These policy briefs have been independently produced by the academic community and will be supported by white papers to be published for the Planet Under Pressure conference. The conference provides a platform for independent, impartial research. The views and the recommendations expressed in the policy briefs should not be taken to reflect the views of all programme sponsors.

Conference structure:

Monday March 26: State of the Planet: latest knowledge about the pressures on the planet

Tuesday March 27: Options and opportunities: exchanging knowledge about ways of reducing the pressures on the planet, promoting transformative changes for a sustainable future and adapting to changes in the global system

Wednesday March 29: Challenges to progress: clarifying what is preventing or slowing humanity from implementing potential solutions

Thursday March 30: Ways ahead: a vision for 2050 and beyond, and exploring new partnerships and pathways towards global sustainability

Themes:

- * Meeting global needs: food, energy, water and other ecosystem services
- * Transforming our way of living: development pathways under global environmental change
- * Governing across scales: innovative stewardship of the Earth system

For more details: www.planetunderpressure2012.net/themes.asp

Conference sessions: www.planetunderpressure2012.net/sessions.asp

Mailing list: <http://www.planetunderpressure2012.net/maillinglist.asp>

Registration for journalists: 1 December 2011 www.planetunderpressure2012.net



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Sponsor

International Council for Science

Founded in 1931, Paris-based ICSU is a non-governmental organization with a global membership of national scientific bodies (121 Members, representing 141 countries) and International Scientific Unions (30 Members). The Council is frequently called upon to speak on behalf of the global scientific community and to act as an advisor in matters ranging from the environment to conduct in science. ICSU's activities focus on three areas: planning and coordinating research; science for policy; and strengthening the Universality of Science.

Organizers

The Earth System Science Partnership

Based in Paris, France, the ESSP has been created for the integrated study of change in the Earth System and the implications for global and regional sustainability. There are four institutional partners:

International Geosphere-Biosphere Programme

Based in Stockholm, Sweden, IGBP was launched in 1987 to coordinate international research on global-scale and regional-scale interactions between Earth's biological, chemical and physical processes and their interactions with human systems. IGBP views the Earth system as the Earth's natural physical, chemical and biological cycles and processes AND the social and economic dimensions.

DIVERSITAS

Paris-based DIVERSITAS is an international programme of biodiversity science with a dual mission: To promote an integrative biodiversity science, linking biological, ecological and social disciplines in an effort to produce socially relevant new knowledge; and to provide the scientific basis for the conservation and sustainable use of biodiversity.

International Human Dimensions Programme on Global Environmental Change

Based in Bonn, Germany, IHDP fosters original research into human behaviours and actions relevant to global environmental changes. IHDP builds international, multi-



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disciplinary teams of scientists to conduct integrated, long-term collaborative research and adds value by strengthening the voice and impact of a huge network of individual scientists and research initiatives. The Earth System Governance Project is one of IHDP's core projects and has compiled the Policy Brief on the Institutional Framework for Sustainable Development.

World Climate Research Programme / Earth System Science Partnership

Based in Geneva, Switzerland, WCRP's two overarching objectives are to determine the predictability of climate and to determine the effect of human activities on climate. WCRP facilitates analysis and prediction of Earth system variability and change for use in an increasing range of practical applications of direct relevance, benefit and value to society.