

**UN Conference on Sustainable Development,
Rio de Janeiro, 4 – 6 June 2012**

**Input for Compilation Document
Submission by the Planetary Boundaries Initiative**

This submission is made on behalf of the newly-formed Planetary Boundaries Initiative, which includes amongst its aims the promotion of a Declaration on Planetary Boundaries.

We submit that States at the Rio Conference should adopt a Declaration on Planetary Boundaries, along the lines of the draft Declaration which is set out at the end of this submission.

If this is not possible, then the outcome document should:

- prominently reflect its Principles;
- contain a commitment by States to develop a legal instrument which would reflect its Principles; and
- pending development of such an instrument, contain a commitment to confer the function of promoting and developing the Principles, and development of such an instrument, on an over-arching international body.

Why a Declaration on Planetary Boundaries?

In 2009, 29 scientists published a paper putting forward the planetary boundaries concept. The concept posits that there are nine critical Earth-system processes and associated thresholds that we need to respect and keep within, in order to protect against the risk of irreversible or even catastrophic environmental change at continental to global scales. Doing so would create a safe operating space for humanity, within which human economy and society would be able to play out. According to the concept's authors, three of the nine suggested thresholds have already been crossed (for climate change, biodiversity and the nitrogen cycle).¹ The threshold for the phosphorus cycle (linked, within the concept, to the nitrogen cycle) has also been crossed, according to a scientific paper earlier this year.²

What is new about the concept is that, rather than understanding environment, economy and society as three pillars of sustainable development, it makes clear that sustainable

¹ Rockström, J et al. Planetary boundaries: Exploring the safe operating space for humanity. *Ecology and Society* [online] 14, 32 (2009). Available online at www.ecologyandsociety.org/vol14/iss2/art32

² The paper is entitled 'Reconsideration of the planetary boundary for phosphorus', authored by Carpenter and Bennett, was published in February 2011 in *Environmental Research Letters* and is available here: http://iopscience.iop.org/1748-9326/6/1/014009/pdf/1748-9326_6_1_014009.pdf

development can only take place within the safe operating space identified by the biophysical realities of critical natural thresholds.

The idea has been acknowledged by the Secretary-General's High-Level Panel on Global Sustainability: the overall goal for its report later this year and input into Rio+20 is *“To eradicate poverty and reduce inequality, make growth inclusive, and production and consumption more sustainable while combating climate change and respecting the range of other planetary boundaries.”*

The planetary boundaries concept has important implications for future governance systems. Current systems, including international laws, have not yet developed sustainability principles that ensure stable and resilient ecological systems for protecting human health and well being. Instead our institutions are often caught in conflict between short-term financial gains and long-term sustainability.

The draft Declaration on Planetary Boundaries is intended as a statement of first principles that lay the institutional framework for such planetary boundary thinking. It calls for humanity to recognize, respect and be responsible for not transgressing planetary boundaries – internationally, regionally, nationally and locally. It sets out general requirements under each of these three heads, and provides for an over-arching institutional home which cooperates with current institutions and actors across the range of human activities that affect planetary boundaries. In time, such an institution could become - under a UN Convention on Planetary Boundaries - an over-arching Planetary Boundaries Commission.

Rio +20 is an obvious opportunity to explore this innovative approach to sustainable development, including in order to develop ideas around Sustainable Development Goals and/or Millennium Consumption Goals.

Those behind this Declaration believe there is an urgent need to take action on this governance issue to ensure that everyone, including present and future generations and particularly the vulnerable and marginalised, have the protections and rights necessary to live in a social and physical environment that provides for their health and well being.

The draft Declaration follows. It is available, along with a Commentary, here:
<http://planetaryboundariesinitiative.org/>

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http://www.wwf.org.uk/wwf_articles.cfm?unewsid=5382

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Planetary Boundaries Initiative
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Draft Declaration on Planetary Boundaries

We, the peoples and nations of our planet, Earth,

Cherishing its beauty, diversity, vitality and community of life,

Recognising the innate linkages between components of the ecosystems that sustain life, and *valuing* their fundamental role for human existence, development and well-being,

Conscious of facing a critical period in the history of our planet,

Concerned that rapidly growing dependence on fossil fuels, industrialised forms of agriculture and escalating demands on natural resources have reached a level that could damage the biogeochemical feedback systems that maintain a habitable planet, resulting in irreversible and, in some cases, abrupt environmental change, which could profoundly undermine long-term human existence and that of other forms of life,

Recalling commitments made at the United Nations Conference on Environment and Development in respect of sustainable development and future generations, and in particular, Principle 15 of the Rio Declaration concerning application of the precautionary principle,

Determined to respond to the strong scientific consensus and growing evidence base that there are identifiable Earth-system processes on which human existence, development and well-being depend, and which must be safeguarded from the threats of serious or irreversible damage as a result of human activities,

Recognising that safeguarding those processes from such threats is necessary in order to promote sustainable human development and social justice, and likewise that promoting sustainable human development and social justice is necessary for safeguarding those processes,

NOW DECLARE AS FOLLOWS:

Principle 1 – The Fundamental Principle

Earth-system processes that are necessary for ensuring a safe operating space for humanity should be recognised and respected. We are all responsible for safeguarding those processes from the threats of serious or irreversible damage as a result of human activities.

Principle 2 – Recognition

Recognition of necessary Earth-system processes means:

- (1) acknowledging that such processes exist;
- (2) acknowledging the need to act in order to safeguard such processes from the threats of serious or irreversible damage as a result of human activities;
- (3) researching and developing our understanding of the nature and vulnerabilities of such processes, including of the thresholds at which they could shift into new states and of where boundaries at a safe distance from such thresholds would lie;
- (4) identifying the human activities that affect such processes, and monitoring the effects of such activities, including collecting, collating and presenting scientific data and information by reference to such processes and the human activities which affect them; and
- (5) developing and communicating information about such processes in ways which are transparent and designed to encourage public engagement, trust, common understanding and acceptance of shared responsibility for safeguarding them.

Principle 3 - Respect

Respect for necessary Earth-system processes means:

- (1) using scientific information to understand their thresholds;
- (2) determining their boundaries transparently on the basis of scientific advice, having taken into account social and economic considerations, public opinion and having assessed the risk of crossing the boundaries;
- (3) making decisions, across the range of human activities which affect such processes, to minimise the risk of crossing the boundaries;
- (4) designing appropriate public and private sector institutions in order to safeguard such thresholds and boundaries.

Principle 4 - Responsibility

Being responsible for safeguarding necessary Earth-system processes means:

- (1) establishing over-arching legal principles and duties to recognise and respect such processes across the range of human activities that affect them;
- (2) ensuring people have the right to have them recognised and respected;
- (3) guaranteeing rights to information, participation and access to justice, including appropriate and effective remedies; and
- (4) creating an independent public enforcement body with appropriate and effective legal powers and duties.

Principle 5 - Institutions

- (1) The function of promoting and developing these Principles should be conferred on an over-arching international body (the Planetary Boundaries Institution (PBI)), coordinating a network of regional, national, and sub-national bodies.
- (2) The function of promoting and developing these Principles involves cooperation among the PBI and the network, and institutions and organisations with responsibilities across the range of human activities that affect necessary Earth-system processes, at the appropriate levels, as well as engagement and communication with the public.
- (3) The PBI and network will also have the function at the appropriate level of providing scientific information and advice for the purposes of Principle 3(1) and (2), based on coordination of the evidence available from research on the thresholds and boundaries of necessary Earth-system processes.
- (4) The PBI and network will be assisted in its work by independent, transparent and participative panels at international, regional and national levels, especially in relation to scientific and other research evidence, socio-economic considerations and public engagement.

Principle 6 - Commitments

(1) UN bodies and agencies, other international institutions and inter-governmental organisations with responsibilities for activities that affect necessary Earth-system processes, regional economic integration organisations and States will:

- (a) review the laws, policies, strategies and arrangements they have in place for recognising, respecting and being responsible for safeguarding necessary Earth-system processes from the threats of serious or irreversible damage as a result of human activities in accordance with these Principles;
- (b) make any improvements necessary to apply these Principles;
- (c) cooperate with, provide to and exchange data and information with the PBI and network at the appropriate level; and
- (d) report periodically to the PBI and the network at the appropriate level and the independent enforcement body under Principle 4(4) on the effects of activities on such processes and on the extent to which they are applying these Principles.

2. In reviewing and improving their laws, policies, strategies and arrangements, States and regional economic integration organisations will, in conjunction with the PBI and network at the appropriate level, consider:

- (a) the impact of their activities on Earth-system processes that are necessary for ensuring a safe operating space for humanity, and
- (b) how they can ensure that their activities do not exceed their fair share of that safe operating space.