



**Positioning the HLPF in relation to  
other Rio+20 follow-up processes:  
*Strengthening Science-Policy  
interface***

Expert Group Meeting on the High-  
Level Political Forum UNDESA, New York, 3-4 April 2013

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## ***Role and functions of HLPF in strengthening the science-policy interface***

*Among the specific tasks given to the Forum, two are particularly significant for the scientific community:*

- 85 (k) strengthen the science-policy interface through review of documentation bringing together dispersed information and assessments, including in the form of a global sustainable development report, building on existing assessments
- 85 (l) enhance evidence-based decision-making at all levels and contribute to strengthen ongoing efforts of capacity building for data collection and analysis in developing countries

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More positively, the Rio+20 agreement does provide a number of opportunities to strengthen the science-policy interface. In particular governments have agreed to initiate a process - in which the scientific community will be fully involved – to develop a set of Sustainable Development Goals. Secondly, the Commission on Sustainable Development (CSD) will be replaced by a UN high-level political forum, which will have greater powers to oversee the implementation of sustainable development commitments contained in the Rio+20 accord and in the agreements reached at the previous summits. Thirdly, governments have also agreed to “upgrade” and “strengthen” the United Nations Environment Programme (UNEP), a process that is aimed at providing UNEP with more secure funding and a broader membership base. The Rio+20 accord stipulates that both the new high-level political forum and the strengthened UNEP should include a strong science-policy interface in order to improve evidence-based decision-making.

In conclusion, taking all strands of Rio+20 together, the summit process and outcome created further momentum for the development of a new contract between science and society, including policy-makers and other stakeholder groups. The scientific community now needs to strengthen further international collaboration, and take a leading role in providing the knowledge needed for societal transformations to a sustainable world.

## ***Key issues: Science for setting priorities for SDGs***

- ❑ Science to generate useful knowledge to support a **transition** to SD
- ❑ To develop tools for monitoring key environmental and societal conditions and guidance on effective management systems
- ❑ Policy setting and implementation must be based on the best available knowledge, **natural, social, economic, health, engineering, etc. sciences**
- ❑ Improving science **education** and **capacity-building**, for women and men, is essential, as is bridging the North-South divide in scientific and technological capacity
- ❑ Improving public access to **scientific data** and **information**, and data sharing between scientists, is crucial for sustainable development
- ❑ **Strengthening the scientific base of environment and sustainable development governance institutions** should be one major building block of institutional reform, to be agreed upon by HLPF

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Policy setting and implementation should be based on the best available knowledge. There should thus be an intimate connection between the scientific and policy making communities. Such a connection will help make research and scientific information more policy-relevant, and policy development and implementation more science based. Efforts to improve the institutional framework for sustainable development at all levels, and international environmental governance institutions, must include strengthening of science- policy links, as existing and new institutions require access to the best scientific knowledge available. This includes knowledge in the social and economic sciences, as well as interaction with research communities worldwide.

### GLOBAL VISION

The Rio+20 outcome document<sup>1</sup> proposes that the SDGs must be “action-oriented, concise and easy to communicate, limited in number, aspirational, global in nature and universally applicable to all countries while taking into account different national realities, capacities and levels of development and respecting national policies and priorities”.

Meeting all of these requirements will be a challenge for the UN working group. A major difficulty is the interdisciplinary nature of sustainable development. It cuts across economic, environmental and social dimensions in ways that are not well understood. An understanding of climate change, for example, will be necessary to define measures across water, food and energy security. The working group will need to draw on the best available knowledge to analyse these linkages, possible synergies and trade-offs.

The working group’s first action must be an extensive information-gathering exercise. This must include all work already undertaken on SDGs, targets and indicators. The group should set up consultations in countries across a range of development levels and seek wide input, from civil society, business, industry and the scientific community.

The long-term strategy of the SDGs must be decided. Should they become the successor to

## Tackling emerging challenges for development

- ☑ **Climate change:** Atmospheric GHG concentration stabilization below 450 ppm
- ☑ **Food security:** knowledge-based focus on enhancing sustainable production
- ☑ **Water security:** knowledge-based approach to water management
- ☑ **Biodiversity and ecosystem services:** incorporate the multiple values of biodiversity and ecosystem services into policy; Aichi Targets should be implemented at all scales.
- ☑ **Energy for all:** deployment of clean energy technologies energy efficiency and conservation, as well as on advanced renewable energy systems
- ☑ **Disaster risk reduction:** strengthen significantly disaster preparedness using knowledge, innovation and education for effective response at all levels
- ☑ **Sustainable consumption:** transdisciplinary research - move towards a green economy and sustainable development

Main recommendations from:  
ICSU-UNESCO, the Planet Under Pressure science and policy conference, ISSC, WFEO, WMO, UNEP and UNU...

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Concerted, global and immediate action is needed to reduce the risk of fundamentally disrupting the stability of the Earth system, with consequences for global economic and political systems. Actions to enhance the resilience and decrease the vulnerability of human communities are also urgently needed. This must be accompanied by concerted global and enhanced action aimed at bridging the development gap between North and South and eradicating poverty, taking into account a growing world population.

Specific topical priorities which require urgent action include climate change, food security, water security, energy security, biodiversity loss, disaster risk reduction, and sustainable consumption and production patterns, with an overarching goal of human wellbeing, social equity and environmental and economic sustainability.

Other immediate challenges to be addressed include: ocean acidification, pollution and overfishing; disruption of the nitrogen and phosphorus cycles; global chemical pollution; deforestation; and megacities and urbanization; all of which need action based on the latest science and technology, coordinated targeted observations and research, and improved governance.

Addressing human health needs and concerns should generally be among the priority actions towards sustainable development and poverty eradication. It should also be central in addressing most if not all new and emerging challenges identified above. The increasing global mobility of people, animals and goods, as well as global warming, is leading to new disease risks in countries and regions where these diseases did not occur before.

## ***International Science-Policy Interfaces (ISPIs)***

***ISPIs are proliferating in the various regimes of international governance of sustainable development:***

Assessment Body	Policy Body
<b>IPCC:</b> Intergovernmental Panel on Climate Change	UNFCCC
<b>IPBES:</b> Intergovernmental Platform on Biodiversity and Ecosystem Services	CBD
<b>WWAP:</b> World Water Assessment Programme	UNESCO
<b>HLPE:</b> High level panel of experts for Food security and nutrition	UNFAO
<b>AoA:</b> Assessment of Assessments for the marine environment	UNGA
<b>GSP:</b> Global Soil Partnership	FAO Committee on Agriculture (COAG)

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5 International Science-Policy Interfaces (ISPIs) are proliferating in the various regimes of international governance of sustainable development: scientific advisory bodies of various environmental conventions, IPCC, IPBES, World Water Assessment Programme, High level panel of experts for Food security and nutrition, Assessment of Assessments [AoA] for the marine environment, foreseen panels on soils at FAO ...

Their multiplication is for the moment often based on the replication of successful mechanisms or experiences: the IPCC is an obvious reference, and so is the Millennium Ecosystem Assessment as far as the IPBES is concerned. The role played by science in addressing long range transboundary air pollution (LRTAP / Acid rains), stratospheric ozone depletion (Montreal protocol), or environmental issues in the Mediterranean (Barcelona Convention) are other key references.

Integrated modeling exercises and integrated assessment methods (scenario and simulation, for instance) have been co-evolving with these different exercises. They both play a central role in the mechanisms that are acknowledged as successful. Influential personalities (notably Bob Watson) and key research institutions have also played a major role in transferring experiences from one field to another. There is therefore some genealogy underpinning the multiplication of ISPIs.

But recent experiences and publications put the stress on the specific political context and specific structure of academic and epistemic communities in each field. This research pinpoints that the role of science has to be analysed specifically in each case. It might be useful to avoid overlap between different science-policy interface institutions, but there would be apparently very few economies of scale, and it does not seem relevant to rationalise the fragmentation of institutions by merging or substituting one to the other..

The model of an existing ISPI cannot be directly replicated in another field (IPCC for instance cannot be replicated, although it is a useful reference or benchmark). There are

## ***Mechanisms for Science and Policy Interaction:***

### **Scientific assessments and Advisory bodies**

- ☐ **IPCC Assessment Reports** - FAR, SAR, TAR, AR4 & AR5
- ☐ **IPCC- Subsidiary Bodies**, support the CoP:
  - ◆ **SBI**: Subsidiary Body for Implementation
  - ◆ **SBSTA**: SB for Scientific and Technical Advice
- ☐ **CBD- Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA)**
- ☐ **GSP- The Intergovernmental Technical Panel on Soils (ITPS)** shall provide scientific and technical advice on global soil issues to the Global Soil Partnership (**GSP**) ...
- ☐ Policy briefs, white papers, side events...
- ☐ Media impacts on public opinion
- ☐ Futur Earth...

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## **MECHANISMS FOR SCIENCE AND POLICY INTERACTION**

Scientific advice to existing international environmental conventions and international agreements at the global level is mainly provided through two types of mechanisms: (i) scientific assessments, and (ii) scientific advisory bodies. The objective of international scientific assessments is to establish the-state-of-the-art knowledge on a given problem and its future risks. In order to enhance their policy relevance, most assessments related to conventions have also been called to include assessments of options for action strategies. An assessment has a final product which is its report. An assessment needs to be repeated or updated periodically, in order to reflect the development of the problem and its impact on society, as well as evolutions in scientific knowledge. The best known example is the series of assessment reports prepared regularly by the Intergovernmental Panel on Climate Change (IPCC).

Scientific advisory bodies represent a second modality of science-policy interaction. Best examples of scientific advisory bodies to global intergovernmental processes are the Subsidiary Bodies on Scientific, Technical and Technological Advice (SBSTTAs), established by the Conference of the Parties (COP) to the Convention on Biological Diversity (CBD) and the Convention to Combat Desertification (UNCCD), and the Subsidiary Body on Scientific and Technological Advice (SBSTA), established by the COP to the Framework Convention on Climate Change (UNFCCC). The aim of these advisory bodies is to provide, on a continuing basis, scientific and technical advice for the implementation of a convention. These advisory bodies set their agenda in accordance with the programme of work decided by the international oversight body for the implementation of a convention (i.e. the Conference of the Parties).

Ideally, these two types of mechanism for providing scientific advice should be established, as appropriate, for strengthening science-policy links at all levels and for all policy domains related to sustainable development. The overriding goal for both mechanisms should be to

## ***Criteria for best practice, legitimacy in a political context and mutual trust***

- ☐ scientific **independence, excellence** and **credibility**
- ☐ **Geographically balanced**: representation of the global scientific community, giving a voice to scientific communities in 4 developing regions (Asia/Pacific, Africa, LAC, West Asia)
- ☐ **Open, inclusive**, including also major **civil society actors** and the **private sector** (participatory approach)
- ☐ **Transparency** of the process (es)
- ☐ **Good communication** by scientists about processes, strengths and limitations of their work

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### **Legitimacy in a political context and trust**

Legitimacy at the global level requires that the scientific organizations or the scientific advisory mechanisms involved are (i) representative of the scientific community the world over; (ii) preferably have already some track record of providing scientific advice to policy making bodies; and (iii) the functioning of the organization and/or the process is fully transparent.

Making participation in intergovernmental science-policy processes open, inclusive and geographically balanced is indispensable for ensuring a politically legitimate 'product'. Only on this basis will it be possible to find consensus between governments from all parts of the world, developing and developed countries, on policy development and implementation. Inclusion of major civil society actors and the private sector will significantly enhance political legitimacy and ensure greater transparency for these processes.

The types of open and inclusive processes described above, with dialogue between all actors, are essential for generating trust and understanding. Good communication by scientists about the processes behind their work and the strengths and limitations of the knowledge with which they are working, is also crucial.

## ***So why we need a Global Sustainable Development Report?***

*§85(K): "strengthen the science-policy interface through review of documentation bringing together dispersed information and assessments, including in the form of a **global sustainable development report**, building on existing assessments"*

- ☑ Identify gaps and uncertainties in scientific knowledge and assess how current practices have been communicated to policy-makers at the national, regional and global levels
- ☑ Embrace the diversity of knowledge & the diversity of circumstances
- ☐ Build on existing regional and global assessments and provide a framework for the integration of sectoral and specialized assessments
- ☑ To establish a framework to monitor the performance of the voluntary commitments
- ☑ reorientation and restructuring of national and international institutions to overcome barriers to progress and to move to effective Earth system governance
- ☑ to produce a framework and options for the Global Report itself



***Thank you***

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