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Powerful International Science – Policy Interfaces for Sustainable Development

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This contribution for UNCSD 2012 concerning the Institutional Framework for Sustainable Development builds upon IDDRI's experience in supporting negotiations on the establishment of international science-policy interfaces like IPBES[1], and on recent publications and workshops[2] intending to take stock of the variety of science-policy interfaces having emerged for the international governance of the environment or other sustainable development objectives like food security.

1. Intergovernmental Science Policy Platform on Biodiversity and Ecosystem Services

2. Haas P.M., Stevens C. (2011), "Organized Science, Usable Knowledge and Multilateral Environmental Governance", under press.
Labbouz, B., Treyer, S., Louafi, S. (2011), "The High-Level Panel of Experts for Food Security: How Can Controversies be made Useful for Decision Makers?", Congress of the International Studies Association "Global Governance: Political Authority in Transition", Panel on "Scientists as Policy Entrepreneurs: The Role of Science in International Environmental Governance", March 2011.
Van den Hove, S. (2007), "A rationale for science-policy interfaces", Futures vol.39, pp.807-826.
Wakhungu, J. (2010), *International Assessment of Agricultural Knowledge Science & Technology for Development (IAASTD): The Process Re-visited,* paper presentation to the informal Meeting "Bringing more collective and shared expertise in global food security debate: Lessons learned from existing panels of experts at the interface of international negotiation processes", Rome, 27 September 2010, 4 p.

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1. ORGANISING THE PROLIFERATION

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[3], 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 or for the UNCCD[4]...

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 Millenium 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 pinpoint 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 even fewer reasons to think that the science-policy interface function in a specific field could be simply taken over by an existing ISPI from another field.

3. Intergovernmental Panel on Climate Change
4. United Nations Convention to Combat Desertification

Recommendations

1a. We should strive for synergies and coordination between ISPIs in order to avoid duplication.

1b. We should draw, and learn, lessons from experiences of ISPIs in other fields. But all fields differ and we should avoid replication of institutional set-up from one field to another.

1c. The role of science in each field has to be assessed specifically. Similarly, the organisation and functions of science-policy interfaces should not be replicated from on experience to another.

1d. Institutionalisation of scientific expertise by creating new ISPIs is an option among others, not a necessity. Empowering existing academic arenas and coordinating partial, scattered existing mechanisms should also be considered valid options.

2. ACCEPTING AND CLARIFYING THE POWER OF ISPIS COMES FIRST, ENSURING THEIR EFFICIENCY COMES SECOND

Current discussions about ISPIs are mostly focussing on the improvement of their efficiency, and the corresponding optimal institutional design. As stated before, questions of institutional design should follow, not precede, the identification of the role expected from scientific expertise in each given area.

Reference models from successful ISPIs, generally used to define efficiency improvements, have to be put into perspective. They often refer to situations where science's key role was to influence the policy agenda by making the case for a specific environmental problem, for which technological solutions were apparently already at hand (e.g. it was the case for LRTAP or the Montreal protocol).

It is in the same perspective that the IPCC, and in particular its Working Group I on climate science, have been seen as a reference. This is due to its efficient work in clarifying the characteristics of climate change, giving evidence of its anthropogenic cause, and making a clear statement of the minimum expected level of climate change during the next century.

In such a perspective, it is generally considered ideal for scientists to reach consensus and clarify residual uncertainties in order to have an impact on decision makers. Efficiency is then a question of:

- ensuring good quality standards for the production of "sound science";
- improving communication channels and mechanisms to reach policy makers.

But this perspective is only relevant:
- for experimental sciences and biophysical phenomena;
- and if the objective is to put an environmental issue on the agenda.

For many other scientific fields and policy contexts, controversies cannot be reduced to uncertainties. When it comes to social changes, development pathways or social sciences and economics, controversies stem from different worldviews. They cannot and should not be reduced to consensus. And in many cases, the role of science is not anymore in agenda setting, but rather on comparing policy options.

Working group III of IPCC provides an interesting example of what other roles science can play. It produces scientific expertise on possible socio-economic trajectories to 2100 in order to inform a negotiation process where burden sharing is a key issue. Procedural solutions found to deal with divergences among researchers in WG III are nevertheless much less analysed and discussed than WG I processes, although they might represent very useful experiences.

Food security is also an interesting domain, for which the critical function of science might well be much more in the evaluation of the performance of public policies and regulations than in putting food security on the international agenda. The role of science for the evaluation of policies will be all the more critical when the focus goes away from international regulations (what options do we have to regulate the volatility of international prices ?) and back to assessing the performance of national domestic policies, that are essential drivers of food security. Such an evaluation however raises sovereignty issues and will therefore necessarily question the legitimacy of an ISPI to work on this core question.

Recommendations

2a. The political function that science can play in policy processes should be acknowledged. It should not be reduced to producing biophysical scientific evidences for the only purpose of agenda setting.

2b. The role of science[5] has to be considered of a strategic nature, in so far as knowledge production ensured in these international arenas has a key role to play in advocating for changes in current policies, by, *inter alia*:
- assessing the current state of a problem;
- evaluating the performance of existing or possible policy options;
- evaluating the costs (not only economic costs, but also social, environmental, political costs) of the different options, and the distribution of these costs among the different negotiating parties or non-negotiating stakeholders;
- closing controversies when possible;
- re-opening the range of possible options;
- re-framing the formulation of a problem to include dimensions that are not enough taken into account.

This first list of possible functions of scientific expertise in international negotiation processes should illustrate that there are a diversity of possible strategic roles of science. They have to be identified carefully, in order to clarify how to ensure the legitimacy of science, or the corresponding ISPI if considered necessary, for such a strategic role.

2c. Science should not be expected to take over the responsibility of political decision-makers and negotiators. The role of science can be of a political nature, but it will never be to impose any decision calculated as optimal, which would substitute expertise to the negotiation process. Improving the legitimacy of ISPIs is important, and can necessitate pluralism, or even the participation of a variety of stakeholders because they hold a key component of relevant knowledge, as is the case in IPBES. However such a "democratisation" process in the field of knowledge production should never result in its substitution to political decision making.

2d. Assessing the efficiency of ISPIs in terms of credibility, legitimacy and relevance is important, but only once the strategic role of science in each situations has been clarified.

Depending on the context and the expected function, credibility should not be reduced to quality processes ensuring "sound science". It can be linked to the organisation of a pluralistic academic debate among different worldviews (for instance, in economics, about the impacts of trade liberalisation on socio-economic development), showing both convergences and divergences in the existing scientific production, that the decision maker has to bear in mind when making a political choice. A forced consensus hiding controversies among worldviews would not be a credible and legitimate way to obtain political action from decisionmakers.

Independence from any mandatory body, be it national or international, can be a very important criterion to ensure some of the strategic functions science could play. This is particularly the case regarding the capacity to re-open the range of possible options, which necessitates that the mandate of an ISPI is not

5. And the function of ISPIs if institutionalisation is seen as necessary

too narrowly defined by its mandatory body. Independence would increase its credibility and also its legitimacy. But in some intergovernmental negotiation processes, legitimacy might call for some kind of intergovernmental designation of experts, and relevance might necessitate some definition of the mandate by an intergovernmental process.

In every specific context, it is thus necessary first to analyse and specify the strategic function expected of science (or from an ISPI if considered necessary) in order to clarify its political role, and second to address specifically how to ensure or improve its credibility, legitimacy and relevance, with respect to the specific expected strategic function. ▮

Trully *powerful*, not just *efficient* science-policy interfaces are needed for the international governance of sustainable development. Ensuring they can have power, in a legitimate and efficient way, goes beyond institutional design.

At UNCSD Rio+20, the international community should decide to empower each ISPI with a strategic and political role. A process should be launched to specify, in each case, what strategic role science can play, and at the same time, draw relevant lessons from other experiences without replicating one-size-fits-all models.