A New Link Between Biodiversity Science and Policy

After several years of negotiations, a new scientific advisory body for international biodiversity policy, the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), *will soon be formally established by the UN General Assembly. This platform intends to fill the gap between biodiversity science and biodiversity policy, ensuring policy relevance while avoiding over-politicisation. There are great opportunities but also considerable challenges for this new organisation.*

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Although many agreements, conventions, and treaties exist in the area of biodiversity, they have not yet been able to significantly reduce species loss as mandated by the 2010 target of the *Convention on Biological Diversity (CBD)*. Will a new international *Science-Policy Interface (SPI)* be able to significantly improve biodiversity protection while avoiding being politicised by the interests of stakeholder groups and national interests? The soon to be founded *Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES)* will be to some degree designed after the model of the IPCC, but it has to address the peculiarities of science and policy in the area of biodiversity to be successful.

History of the *IPBES* Process

The awareness that the interface between science and policy should be improved in the area of biodiversity is not new. Shortly after the *CBD* came into force in 1993, it became obvious that its scientific advisory board, the *Scientific Body for Scientific, Technical and Technological Advice (SBSTTA)*, did not function as an independent scientific unit. Instead, it served as a pre-negotiations table for the main executive body, the *Conference of the Parties (COP)*. The *SBSTTA* was thus highly politicised while preparing the documents submitted to the *COP*, and this procedure has limited its capacity to provide independent scientific input until today (Koetz et al. 2008). On the other hand, independent scientific assessments such as the *Global Biodiversity Assessment* were rejected by some countries due to a lack of political legitimacy, and had almost no impact on policy processes (Heywood 1995).

To avoid such failures, a group of scientists launched another bottom-up approach in 2000, the *Millennium Ecosystem Assessment* (MA 2005). This assessment became important for several reasons: First, it improved our understanding of the relevance of biodiversity for a broad array of societal purposes – from economic activities and food supply to poverty eradication and human well-being. Further, it emphasised that scale is important in scientific assessments, moving beyond a single global overview towards multi-scale analyses. It also highlighted the need to involve different kinds of knowledge in assessment processes, including that of social sciences and of local and indigenous peoples. However, it became clear that it is difficult to make such a bottom-up approach policy relevant. The *MA* had only limited impact on policy, because it was not organised in a strict intergovernmental manner, even though it was formally commissioned by the UN and by several biodiversity related conventions. Only an intergovernmental process gives governments ownership of the process (but not of the results!) and assures that governments are interested in the outcome. The *MA*, being organised in a primarily sci- >

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entific manner, had direct impact on policy making in countries or regions where national or regional ecosystem assessments were conducted. This observation supports the notion that for scientific assessments not only the outcome (the report itself) is important, but the entire process in which scientists and stakeholders work together (see, e. g., Menzel and Teng 2010).

At the time when the *MA* was published, another process was launched by the former French President Jacques Chirac: a consultation process towards an *International Mechanism on Scientific Expertise on Biodiversity (IMoSEB)*. Following regional consultations in each world region, the *IMoSEB* concluded in 2007 – in its final session – that a new *SPI* on biodiversity should be established (Babin et al. 2008). During this consultation process, some other requirements for such an *SPI* became obvious:

- It should address the needs of several international biodiversity conventions (such as the *CBD*, the *Ramsar Convention*, and the *Convention on International Trade in Endangered Species of Wild Fauna and Flora, CITES*).
- It should be directly linked to biodiversity research and policy, and thus avoid duplication (but be linked to existing scientific networks like *DIVERSITAS*, an international programme of biodiversity science).
- Different regions of the world have different requirements. For example, the African region and some other developing countries emphasised the need for capacity building to be able to contribute to the *SPI*.
- Some countries, e. g., Brazil and China, were very hesitant to participate, because they feared losing control over their domestic biodiversity policies.

Together with the *MA* and its follow-up processes after 2005, the *IMoSEB* was the second immediate predecessor to the *IPBES*. Both merged in 2008, prior to the *CBD's Ninth Conference of the Parties* in Bonn *(COP 9)*. In the following years, three international conferences were arranged (invited by the UNEP) to discuss the needs and options for a *SPI*. The final conference, held in Busan, Korea, in June 2010, at last reached an agreement: the *Busan Outcome* (UNEP 2010). It calls on the UN General Assembly to formally establish an *IPBES*, but agreed only on some general characteristics of such a new institution. It leaves some important aspects open for further considerations within the executive body of the new platform.

The *Busan Outcome* and its Implications

During the first two meetings, a success of the negotiation process remained unclear. At the first meeting in Putrajaya, Malaysia, the most contested issue concerned the connection of the new institution to the *CBD*. In particular, Brazil wanted it only as subsidiary body of the *SBSTTA*, which would have meant that an independent scientific body would not have been created. Other countries were not convinced that something new would be needed at all. But most developing and developed countries were in strong favour for a new institution. The first meeting also discussed capacity building, funding sources, and connections with existing organisations like the UNEP, the UNESCO or the IUCN.

The meeting in Putrajaya asked the UNEP for an estimate of the ability of the existing *SPIs* to meet the expectations envisaged for a global *IPBES*. This gap analysis formed the basis for the discussions at the second meeting in Nairobi in October 2009. It concluded that existing mechanisms – although being important and useful – are not sufficient, because they operate on incomparable scales, do not use standardised methods, are not permanently financed, and assessments are not performed on a regular basis (UNEP 2009). Therefore, the gap analysis clearly opted for a new global instrument. The following discussions explored how relevance, credibility, and legitimacy of an *IPBES* could be achieved. The majority of delegations agreed that relevance can be reached if assessments are oriented on urgent societal questions and processes. To achieve credibility, the best available data have to be used and methods have to be transparent, while results have to undergo a peer review process. Most importantly, the assessments need to be unbiased from political pressure. Legitimacy can only be reached if as many governments as possible take part in the *IPBES*, and if other stakeholders also have the opportunity to participate (Van den Hove and Chabason 2009, UNEP 2009).

Being policy relevant but not policy prescriptive is the major challenge when designing the working structure of the IPBES.

It was also emphasised that assessments should take place on a regular basis, and they should also investigate the relationship between biodiversity, ecosystem services, and poverty eradication. To be useful, their results should be transformed into policy options which are "policy relevant but not policy prescriptive" (UNEP 2010). This formulation met the concerns of some delegations which feared that a strong scientific panel could interfere with national sovereignty. After the second meeting, the question was no longer if an *IPBES* should be developed, but how it needs to look like to meet the discussed requirements.

At the third and final meeting in Busan, most controversies were resolved quickly, and some acceptable solutions – acceptable at least in diplomatic terms – were found. Most discussions concerned legal considerations, such as questions on open access to scientific information and on ownership of traditional knowledge. These topics are under negotiations at other fora as well, and not a single country wants to weaken their bargaining position. In addition to the first and overall target to "perform regular and timely assessments of knowledge on biodiversity and ecosystem services" (UNEP 2010), capacity building was included as a sec-

ond main target. But this target was subjected to financial restrictions as the "new platform should prioritize key capacity-building needs (...), and then provide and call for financial and other support for the highest priority needs" (UNEP 2010). The acceptance of capacity building by developed countries was strongly related to the decision that only voluntary and no mandatory financial contributions should provide funding: a "core trust fund to be allocated by the Plenary should be established to receive voluntary contributions from Governments, United Nations bodies, GEF[1], other intergovernmental organizations and other stakeholders, such as the private sector and foundations" (UNEP 2010). Some countries already declared their willingness to provide funding.

The institutional structure of the *IPBES* will have a "platform" (that) "should be established as an independent intergovernmental body administered by one or more existing United Nations organizations, agencies, funds and programmes" (UNEP 2010). This means that the *IPBES* will be independent – and not subordinated to the *CBD* – but supported or hosted by an existing body of the UN. However, it was not decided which UN body will take on that task, because this decision affects the location of the secretariat: the UNESCO is situated in Paris, the UNEP in Nairobi, but South Korea and other countries were also interested in hosting the secretariat.

The meetings in Putrajaya, Nairobi, and Busan were declared as ad hoc intergovernmental and multi-stakeholder meeting, which indicates that other stakeholders such as scientific organisations, environmental non-governmental organisations (NGOs), or the private sector should be involved as well. At the final meeting in Busan it became clear, however, that the new platform will be established as a strictly intergovernmental body, where other stakeholders will not have the same rights as governments. The *Busan Outcome* states that "the *IPBES* should respond to requests from Governments, including those conveyed by multilateral environmental agreements" (UNEP 2010). Inputs, requests, and suggestions from other stakeholders are "welcomed" and "encouraged", but only "as appropriate" and subordinated to a procedure of prioritisation agreed upon by the executive body, the plenary of member states. Thus, contrary to the *MA* but similar to the IPCC, the *IPBES* would be strictly intergovernmental in nature.

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In this regard, the *IPBES* is following the IPCC structure. But is the *IPBES* really an "IPCC for biodiversity"? This question was the starting point for an *IMoSEB* consultation (Loreau et al. 2006, Babin et al. 2008), but several other reasons also caused concern (see Görg et al. 2007). If we look closer at the primary goal of the *IPBES,* the performance of assessments, the comparison with the IPCC is more complex. As for assessments in general, the new platform should not undertake new research but "identify and prioritize key scientific information needed for policymakers" (UNEP 2010), whereas the way how to conduct such assessments still has to be defined. The work of the IPCC is divided into three working groups: the scientific basis, adaptation, and mitigation. For the *IPBES,* it is more likely that it will work in regionally organised groups which deal with various topics of biodiversity and ecosystem services in different regions of the world. In contrast to the IPCC, local and practical knowledge – including traditional and indigenous expertise – is crucial for designing appropriate response options. An effective method that ensures a firm establishment of solutions is essential if the assessments provided by the *IPBES* should make a difference. Achim Steiner, head of the UNEP, mentioned this need in his introductory speech in Busan: "We are facing the threat that all scientific assessments are becoming only the library of the loss of biodiversity. What is needed is not another assessment, but making scientific findings more policy relevant."

Outlook: Major Challenges for an *IPBES*

As recently outlined by Soberon and Sarukhan (2010), biodiversity protection has to be analysed and decided upon on multiple scales – with national and local scales being much more relevant than in other research areas such as climate change (see also Görg et al. 2007, Van den Hove and Chabason 2009). Accordingly, implementing international decisions on biodiversity policy, e. g., from the *CBD,* at national and local scales has proven rather difficult (SCBD 2010). Also, global biodiversity science (e. g., global monitoring, data integration and coverage, indicator development) is still fragmentary and far from having an integrative approach, in spite of major initiatives such as the development of a *Global Biodiversity Observation Network* (Scoles et al. 2008, Larigauderie and Mooney 2010). Thus, in order to be policy-relevant, a global approach like the *IPBES* needs to have either a strong built-in regional component, e. g., with hubs to carry out regional and national studies, or regions and nations need to complement the *IPBES* structure with their own structures and ensure effective exchanges between them and the *IPBES* (e. g., Soberon and Sarukhan 2010).

In Europe, such a system has been under discussion for quite some time, as building an "EU mechanism of biodiversity expertise" has been announced as a goal in the European Commission's >

1 GEF: Global Environment Facility, www.thegef.org/gef

(EC) strategy to halt biodiversity loss in 2006 (EC 2006). Existing experiences include the *European Platform for Biodiversity Research Strategy (EPBRS)*, which, together with national biodiversity platforms, advises European research on forthcoming issues by directly linking research expertise and policy needs (Neßhöver et al. 2008). Based on its experience, this platform has developed the concept of a "network of knowledge", which tries to address the fact that knowledge on biodiversity is scattered across many institutions, networks, and learned societies, and also includes the practical knowledge of administrations and NGOs on different scales (EPBRS 2009). Additionally, several European countries have developed national biodiversity platforms to better link scientific knowledge with practical knowledge and policy.[2] All these experiences show that it is not easy to actively engage biodiversity experts in the work of *SPIs*. Hopefully, the *IPBES* will improve the status of such work, and bring scientists closer to the policy discussions in their field (see also Henle et al. 2010, in this issue).

From the experiences gained, it seems appropriate to carefully rethink the specificities of the biodiversity topic, the scales relevant for decision making, and the landscape of knowledge holders across the globe (UNEP 2009). A flexible system to approach this knowledge by the *IPBES* will need to be complemented with a strong intergovernmental structure. In other words, being policy relevant but not policy prescriptive will be the major challenge when designing the working structure of the *IPBES* – a challenge which is also currently reopened in the context of the ongoing discussions about the IPCC.

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2 Examples include the *Swiss Biodiversity Forum*, the *Belgian Biodiversity Platform*, and the *Network Forum on Biodiversity Research Germany*: www.biodiversity.ch, www.biodiversity.be, www.biodiversity.de.

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