How IPBES works: The functions, structures and processes of the Intergovernmental Platform on Biodiversity and Ecosystem Services

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How IPBES works: The functions, structures and processes of the Intergovernmental Platform on Biodiversity and Ecosystem Services

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Abstract

The Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) is an international knowledge institution established through the United Nations system. Mandated to "strengthen the science-policy interface for biodiversity and ecosystem services", IPBES has a detailed set of intergovernmentally agreed functions, structures and processes that guide its first Work Program (2014-2018). This working paper sets out these institutional arrangements, noting that broader understanding of the IPBES mechanisms may assist wider participation, accountability, and scholarly analysis.

Keywords: *biodiversity; environmental knowledge; institutional arrangements; IPBES; science-policy interface*

How IPBES works: The functions, structures and processes of the Intergovernmental Platform on Biodiversity and Ecosystem Services

Jasper Montana

1. INTRODUCTION

The Intergovernmental (Science-Policy) Platform on Biodiversity and Ecosystem Services (hereafter IPBES, or 'the Platform') is an international knowledge institution that was formally established in 2012 through the United Nations system[1] with the mandate to:

> "strengthen the science-policy interface for biodiversity and ecosystem services for the conservation and sustainable use of biodiversity, long-term human well-being and sustainable development" (IPBES2012a: 1).

1 Under the auspices of United Nations Environment Program (UNEP), United Nations Educational, Scientific and Cultural Organization (UNESCO), Food and Agriculture Organization (FAO) and United Nations Development Programme (UNDP).

The Platform was initiated 20 years after the Convention on Biological Diversity (CBD) formally recognised biodiversity as a "common concern of humankind" (CBD 1992) and seven years after the Millennium Ecosystem Assessment (MA) formalised the definition of ecosystem services as "the benefits people obtain from ecosystems" (MA 2005: 26). IPBES is hoped to achieve similar international standing as the Intergovernmental Panel on Climate Change (IPCC; Nature 2010) and has adopted an initial four-year Work Program (2014-2018) to be completed in early 2019. This working paper provides an overview of the key institutional arrangements of IPBES as they stand for this first Work Program.

The establishment of IPBES is the result of over a decade of discussions, workshops, and formal negotiations that took place both inside and outside of the United Nations system (see historical accounts in Granjou et al. 2013: 16, Koetz et al. 2011, Perrings et al. 2011, Vadrot 2014). Although legally independent, it is administered by the United Nations Environment Program and has a set of precise institutional arrangements (functions, structures and processes) that provide a framework of rules, principles and procedures to govern the Platform's work.

Although many of the intergovernmentally-agreed decisions that led to these arrangements are made available online through the Platform's website (www.ipbes.net), the available documents follow strict protocols of recording and cross-referencing, which create a "web of texts" that is considered largely impenetrable to those outside the established processes (Granjou et al. 2013: 16). Despite its institutional arrangements being complex, necessarily incomplete, and subject to interpretation when brought into practice, they deserve detailed attention:

Firstly, institutional arrangements provide a framework for the participation of experts. Basic knowledge of the functions, structures and processes of IPBES can make the nomination, selection and participation process more efficient and effective for those with little or no experience of intergovernmental or environmental assessment processes. As will be set out below, IPBES seeks to provide a more inclusive process than previous Global Environmental Assessments and the initial overview provided in this working paper may provide an additional entry point for new participants.

Secondly, greater awareness of the IPBES institutional arrangements provides opportunity for a broader range of commentators to examine and input into the Platform's knowledge making practices. Opening up channels of evaluation and critique to more diverse communities will be particularly important if IPBES is renewed for a second Work Program, which may provide an opportunity for renegotiating some of its current arrangements.

Thirdly, IPBES provides a valuable case study for analytical scholarship. However, finding anchor points from which to conduct analysis can be a challenge. Although necessarily partial in perspective, this working paper provides an overview of the terrain for researchers to conduct more detailed exploration.

This working paper, produced as part of a larger empirical research project[2], provides an extensive, but non-exhaustive, overview of the functions, structures and processes of IPBES in order to contribute to these three endeavours.

2. INSTITUTIONAL ARRANGEMENTS

2.1. The functions of IPBES

The first IPBES Work Program will be carried out between 2014 and 2018 and is divided into 18 core deliverables (IPBES 2013c). The Platform has been initially charged with four broad functions (IPBES 2012a: 1):

- to complete a set of assessments on the state of knowledge on biodiversity and ecosystem services;
- build capacity across its program of work;
- identify and catalyse the development of policy-relevant tools and methodologies; and
- stimulate further knowledge generation.

While the assessments function is familiar from previous Global Environmental Assessment processes, the other three functions are broadly considered innovations in IPBES. There has been some concern, however, that these newer functions are yet to receive sufficient financial or institutional support in the process (Brooks et al. 2014).

2 Research methods included participant observation at IPBES plenary meetings (Antalya, Turkey in 2013; Bonn, Germany in 2015; Kuala Lumpur, Malaysia in 2016); insights from a four-month internship with the IPBES secretariat from January until April 2015; and formal semi-structured interviews with nineteen participants in expert groups, the IPBES secretariat, the Multidisciplinary Expert Panel and Bureau. The research was conducted as part of a PhD program under ethical approval of the Department of Geography at the University of Cambridge.

These components of the work program are also currently underrepresented in the 'Procedures for the preparation of the Platform's deliverables' (IPBES 2015c). The initial work of the Platform in these areas is therefore to develop pilot approaches in lieu of formal procedures and produce 'guidance documents' on how IPBES can further develop its work (i.e. policy support tools, IPBES 2015g).

2.1.1. Assessments

Assessments in IPBES are defined as "published assessments of scientific, technical and socioeconomic issues that take into account different approaches, visions and knowledge systems." (IPBES 2015c) For the first IPBES Work Program, the Plenary has requested a series of thematic, methodological, regional, and global assessments on biodiversity and ecosystem services, totalling at least 9 standalone reports (see Table 1, IPBES 2013c). In comparison, the Intergovernmental Panel on Climate Change (IPCC), on which many of the institutional arrangements of IPBES are based[3], produces just three main assessments reports and one synthesis report in each work cycle (IPCC 2013 (1999)). IPBES assessments are expected to take between three and four years to complete, with early assessments completed in two years. Each assessment report will be completed by a stand-alone author group. The Platform approved its first assessments in 2016.

3 Occasional comparison with the IPCC in this working paper is intended to highlight key differences or similarities between the two institutions. This comparison is not intended to be exhaustive and the institutional arrangements of IPBES have also been influenced by other previous initiatives such as the Millennium Ecosystem Assessment.

Table 1: Assessment reports originally proposed at plenary meeting of the Intergovernmental Platform on Biodiversity and Ecosystem Services in 2013 and their anticipated completion dates. *pending request by Plenary.

Assessment Type	Name	Completion date
Thematic	Pollinators, pollination and food production	February 2016
Thematic	Land degradation and restoration	Early 2017
Thematic	Invasive alien species and their control	Early 2018
Thematic*	Sustainable use and conservation of biodiversity	Not scheduled
Methodological	Scenario analysis and modelling of biodiversity and ecosystem services	February 2016
Methodological*	Diverse conceptualization of values of biodiversity and nature's benefits to people including ecosystem services	Not scheduled
Regional	Africa regional assessment	Early 2018
Regional	America regional assessment	Early 2018
Regional	Asia-Pacific regional assessment	Early 2018
Regional	Europe and Central-Asia regional assessment	Early 2018
Regional*	Open Ocean regional assessment (has not been requested)	Not scheduled
Global	Global assessment	Early 2019

2.1.2. Knowledge and data

The Knowledge and Data function of IPBES is intended to "identify and prioritize key scientific information needed for policymakers on appropriate scales and to catalyse efforts to generate new knowledge by engaging in dialogue with key scientific organizations, policymakers and funding organizations" (IPBES 2013c: 4). In establishing a 'Task Force' expert group, this function expanded to have a dual role of also providing a mechanisms for the management of knowledge, information and data within IPBES itself (IPBES 2013c: 20).

2.1.3. Capacity building

The Capacity Building function of IPBES is intended to "prioritize key capacity-building needs to improve the science-policy interface at appropriate levels", as well as to establish a 'match-making facility' to "catalyse financing" these activities (IPBES 2013c: 2). Capacity building is regarded by many member governments to be a major priority for IPBES and was a key early negotiating point in securing broad intergovernmental support (IISD 2009). The Platform is now piloting a draft program of fellowships, exchanges and training (IPBES 2015e).

2.1.4. Policy support

The Policy Support function of IPBES is intended to identify "policy-relevant tools and methodologies to enable decision makers to gain access to [them] and, where necessary, to promote and catalyse their further development." (IPBES 2013c: 2) The policy support function, as conceived in the current Work Programme, focuses on the development of general guidance and the piloting of an online "catalogue of policy support tools and methodologies" intended "to facilitate easy access by decision makers to tools and methodologies promoted by the Platform" (IPBES 2014: 59).

2.2. The key structures of IPBES

2.2.1. Government members and Plenary

IPBES is legally independent from the United Nations system, but conforms to an intergovernmental framework that upholds the sovereign rights of States as consistent with the Convention on Biological Diversity (CBD 1992). The Platform is currently governed by a collective of more than 120 national governments, called the Plenary, which acts as the Platform's decision-making body (IPBES 2012a). During the first Work Program, the Plenary will meet formally once a year to negotiate and make decisions on the Platform's institutional arrangements, as well as the acceptance, adoption and approval of official outputs as they are completed. National governments are also periodically invited to submit requests of work to the Platform, provide review comments on documents, nominate experts for the Platform's work, and provide financial and in-kind support (IPBES 2013b).

2.2.2. Bureau and Multidisciplinary Expert Panel

Two subsidiary bodies have been established in IPBES, which facilitate oversight and decision making outside of annual plenary meetings (IPBES 2012a). Administrative functions are overseen by a small panel of ten nominated government delegates called the Bureau: two representatives from each United Nations region, including Africa; Asia-Pacific; Eastern Europe; Latin America and The Caribbean (GRULAC); and Western Europe and Other (WEOG). The Bureau is appointed on a three-year rotation and two members of the Bureau are also elected as Chair and Vice-Chair of the Platform.

Scientific functions of IPBES are overseen by the Multidisciplinary Expert Panel, which is composed of 25 experts (five per United Nations region) nominated by countries and selected by the Plenary. The composition of the Multidisciplinary Expert Panel is intended to be balanced with regards to region, gender and discipline (IPBES 2013a), although this is yet to be achieved in practice (see analysis in Montana and Borie 2015 and account of Eastern European region MEP selection in Kovács and Pataki 2016). The Bureau and Multidisciplinary Expert Panel meet in parallel three times per year to discuss progress, make decisions and select experts for the Work Program (IPBES 2013b). Individuals from the two subsidiary bodies are allocated to oversee the progress of each deliverable.

2.2.3. Secretariat and Technical Support Units

The Secretariat, based at the United Nations Campus in Bonn, Germany, is the only permanently located structure of IPBES. The Secretariat is responsible for administrative functions, which include the drafting of working documents, facilitating communications, preparing the budgets and coordinating the outreach activities of the Platform (IPBES 2013b).

The Secretariat is supported by a number of task-specific 'Technical Support Units' that "provide support for regional, functional or thematic aspects of the work programme" and provide for networking across "regional or thematic centres of excellence in the work of the Platform" (IPBES 2013c).

2.2.4. Stakeholders and Observers

Stakeholders in IPBES include "individual scientists and knowledge holders as well as institutions, organizations and groups" and have been broadly defined to cover "both contributors and end users" (IPBES 2015d). This definition of stakeholders technically includes government members, but is generally used to refer to civil society organisations,

professional societies, and other representative groups. Multilateral Environmental Agreements are also significant stakeholders in IPBES and are provided with special privileges in placing requests of work to the Platform (IPBES 2012b). Stakeholders are invited to submit review comments on documents, nominate experts for deliverables, and provide financial or in-kind contributions (IPBES 2015d). Individual non-government stakeholders may also participate directly as expert or authors (see Figure 1). A sub-set of institutional stakeholders who have directly sought approval from the Platform are also able to act as Observers at plenary meetings (IPBES 2012c).

2.2.5. Work Program expert and author groups

The deliverables of the IPBES work program are produced by formally selected groups of experts and authors (IPBES 2015c). According to the IPBES Rules, selected experts "should reflect the range of scientific, technical and socioeconomic views and expertise; geographical representation, with appropriate representation of experts from developing and developed countries and countries with economies in transition; the diversity of knowledge systems that exist; and gender balance." (IPBES 2015c: 9) In contrast to the IPCC, where the disciplinary distribution of experts tends to be heavily siloed within each of the working groups (Godal 2003), IPBES has sought to have disciplinary mix across each of its expert groups. All experts must now adhere to the 'conflict of interest' policy and are unpaid: although the IPBES budget covers the meeting expenses of experts from developing countries outside of the European Union (IPBES 2015c).

2.3. The key processes of IPBES

2.3.1. Plenary negotiations

The Plenary generally conduct formal decision making at annual plenary meetings. The Rules of Procedure are a set of agreed statements that determine the way in which experts, administrators and governments can legitimately act within the Platform (IPBES 2012c). As IPBES lies outside the legal framework of the United Nations, the Plenary has negotiated all of its own operating rules: although those rules governing the operation of the Plenary were based significantly on the United Nations Economic and Social Council; and rules governing other aspects of the Platform's work were based significantly on those existing in the IPCC. Annual plenary meetings are limited in time, however, which has resulted in key components of the institutional arrangements, such as the stakeholder

engagement strategy, to be left under negotiation over multiple years (see for example, IISD 2013). In some cases where text has not yet been negotiated by the Plenary, 'interim' policies can prevail (as occurred with the conflict of interest policy, see Larigauderie 2015).

The Plenary upholds consensus as a core principle of decision making. In IPBES, as in other areas of the United Nations, reaching consensus does not require unanimous agreement, but signifies that there have been no objections to a particular decision (UNEP 2007). This framework takes into account the perspective of all members present and allows workable solution to be reached even when outcomes are not seen as ideal by all, or even any, of the individual parties involved. However, in situations where consensus cannot be reached a vote mechanism can be enacted. The decision to select Germany as host of the permanent Secretariat, for example, was carried out by a majority vote (IISD 2012).

In the negotiation of assessment reports and their summaries, three types of decision are generally made by the Plenary. In brief, these are: acceptance, which is recognition that the material "presents a comprehensive and balanced view of the subject matter"; adoption, which is section-by-section endorsement of a document; and approval, which is "line-by-line discussion and agreement" (IPBES 2015c).

2.3.2. Operational decision making

Plenary decisions often result in broad statements that require interpretation in order to be operationalised for the work of the Platform. The Multidisciplinary Expert Panel, Bureau and Secretariat are often instructed by the Plenary to interpret and operationalise the rules and mandates established in the Plenary. This operational decision making is vital to the functioning of the Platform, but is easily eclipsed by focus on the Plenary as the central decision making process.

2.3.3. Integration of different knowledge systems

The IPBES conceptual framework provides a broad frame for biodiversity that recognises diverse knowledge systems beyond the natural sciences, and spans both regional and global scales (Borie and Hulme 2015, Díaz et al. 2015). In line with this conceptual framework, the Plenary has requested the Multidisciplinary Expert Panel and a supporting 'Task Force' expert group to explore approaches for bringing different knowledge systems, including indigenous and local knowledges, into the Platform's activities (IPBES 2012a). In the absence of a formalised approach to working with different knowledge systems for the first assessments, expert groups have conducted pilot consultations to establish and propose appropriate procedures to the Plenary (IPBES 2015f). In this sense, IPBES has a role in not just synthesising existing knowledge, but creating new ways of conceptualising, integrating and linking different knowledges. IPBES has also established an expert group

to develop approaches to bridging different scales in biodiversity knowledge (IPBES 2015b) and developing biodiversity models and scenario analysis for its future reports (IPBES 2015g).

2.3.4. Expert group selection

Both governments and stakeholders are invited to nominate experts, however current rules dictate that each expert group cannot contain more than 20% of its experts from stakeholder nominations, which ensures that at least 80% of experts are government-nominated (IPBES 2015c). Expert selection is limited to officially nominated individuals and is overseen by the Multidisciplinary Expert Panel and Bureau, with advice from report Co-chairs and Coordinating Lead Authors once they are selected. Aside from principles of breadth and balance outlined above, at present there are no formal criteria for selection. In cases where a balanced expert group cannot be achieved, additional targeted nominations can be sought from governments and stakeholders in a follow up process (IPBES 2016).

2.3.5. Assessment processes

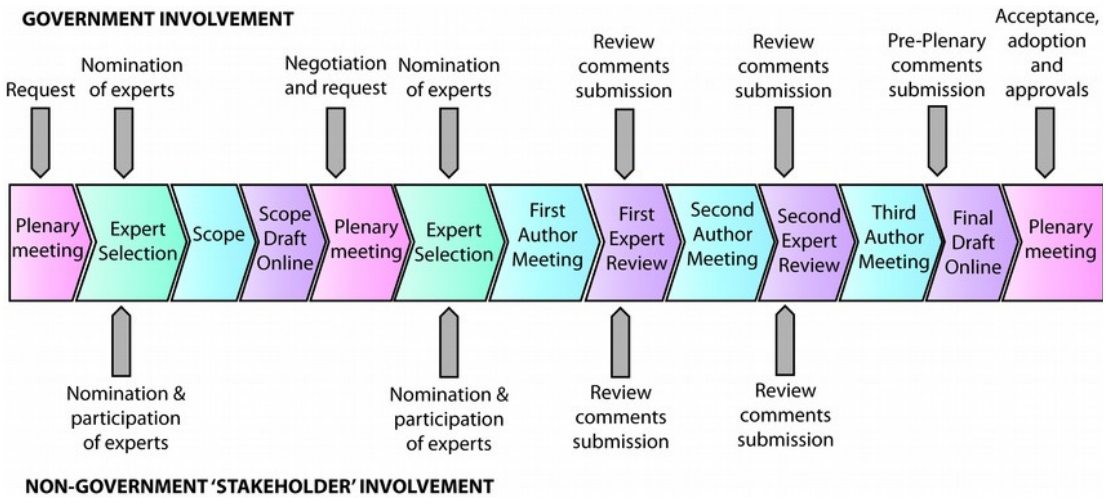
The general sequence of events for IPBES assessments (IPBES 2015c) are summarised as follows (see also Figure 1):

- **Scoping.** Assessment reports are initially 'scoped' by members of the MEP, normally with the assistance of a small expert group (also subject to formal nomination and selection), and scoping reports are presented to the Plenary for adoption. This adopted scoping report then functions as a mandate for the assessment, guiding the selection of experts and drafting of chapters.
- **Expert selection.** (See section on Expert group selection).
- **Author meetings.** Author meetings tend to take place three times in the lifetime of a report, generally following an open review process. Authors are placed into categories: 'Co-chairs' oversee the entire assessment report; 'Coordinating Lead Authors' oversee a given chapter; and 'Lead Authors' attend author meetings and contribute to chapters. The selected authors are often supported by 'Contributing Authors' who do not need to go through formal selection and generally do not attend author meetings, but are invited to contribute specific text to a chapter.
- **Review processes.** Draft assessment documents, referred to as the 'First Order Draft' and 'Second Order Draft' are made available upon request via the secretariat or Technical Support Unit. Review comments may be submitted and are compiled

for response by the author teams. Each review phase is overseen by 'Review Editors', who gather input from invited expert reviewers and ensure that the open review comments have been adequately addressed by author groups.

– **Plenary acceptance, adoption and approval.** Assessment reports themselves are hundreds, or even thousands, of pages long and if satisfactory are accepted by the Plenary. Synthesis reports may also be subject to section-by-section endorsement and adopted by the Plenary. Consistent with the IPCC, all IPBES assessment reports will have a Summary for Policy Makers that is developed at the Second Order Draft stage. These short documents are intended to highlight the most pertinent items of interest to policy makers and other major findings of the overall report. This document is negotiated and approved line-by-line and is expected to receive the greatest press and policy attention. While the Plenary can negotiate the content and wording of the Summary for Policy Makers, the document must remain consistent with the information presented in the main assessment report, and consistency needs to be endorsed by the report's authors, expected to be represented in plenary meetings by the Co-chairs and Coordinating Lead Authors.

Figure 1. The typical sequence of events of IPBES assessments and opportunities for government and non-government stakeholder involvement



2.3.6. Peer review

Peer review operates in IPBES on two levels. Firstly, the Platform brings together groups of experts to assess and synthesise large volumes of published literature. This process is intended to provide for the formation of a 'scientific consensus' amongst the author groups during the report drafting stage. Secondly, the draft reports are also subject to a system of 'open review', in which draft documents are made available online for government and expert comment. Review editors are also appointed who invite and synthesise reviews from a small group of selected experts in the field. This review process is intended to capture a diverse range of perspectives and allow for open debate with comments and responses made available online following completion of the report (IPBES 2015c). In practice, this process relies on the effectiveness of communication channels through which announcements are made about upcoming review periods and on the ability of reviewers to dedicate time to review lengthy documents.

2.3.7. Reporting uncertainty

In advance of its first assessments, IPBES has developed a preliminary system of metrics to acknowledge uncertainty through 'strength of evidence' and 'levels of agreement' measures (IPBES 2013b). This mode of reporting uncertainty is not dissimilar to the quantitative and qualitative measures of confidence and uncertainty established in the IPCC (IPCC 2010).

2.3.8. Financing

IPBES has a variable operational budget of approximately US$3-10 million per year and, to date, has received the majority of contributions from government members (IPBES 2015a). The Platform is dependent on future financial contributions to complete its Work Program and fundraising was recognised at the Fourth Plenary meeting as an important future priority (IISD 2016). IPBES also relies on significant support from in-kind contributions, including the volunteered time of all participating experts and the provision of international technical support and facilities for its meetings.

3. CONCLUSION

The functions, structures and processes of IPBES, summarised here for the first Work Program, are inevitably complex, incomplete, and subject to interpretation. However, their framework provides a basis for establishing agreement – or disagreement – amongst IPBES administrators, participants and external analysts about what the Platform is and how it should operate.

As outlined in the introduction, I suggest that understanding these institutional arrangements can act as a powerful and multipurpose tool.

Firstly, the IPBES arrangements operate as a map for navigating the process by participating experts. In a Platform that seeks to be inclusive of all regions, genders and disciplines, ensuring that new experts can provide input despite the short timelines on which IPBES deliverables are produced is crucial. Lack of experience and knowledge of processes is likely to be a significant barrier to new experts putting themselves forward for nomination by governments or stakeholders. It can also restrict the effectiveness of participation by new experts who may take a period of time to informally learn about the Platform. Having a basic framework of understanding in advance is likely to be a valuable aid in effective participation.

Secondly, the IPBES arrangements can operate as a blueprint for commentators to scrutinise and take critical stances on the Platform. Although the formal decisions that establish the institutional arrangements are made in the Plenary, outside inputs through published opinion pieces, for example, can and do influence these decisions and their subsequent interpretation. However, the qualities of IPBES will vary from different perspectives,. Arguments for the Platform's success or failure in conforming to norms of independence, credibility, legitimacy, relevance, or otherwise, will be inescapably relative to certain normative positions on who and what the Platform is for. How the success of IPBES should be evaluated – and by who – will emerge over time, but creating space for diverse perspectives on the Platform is likely to be important to this deliberative process.

Finally, the IPBES arrangements, presented here, offer a rough sketch of the Platform, which can be used by scholars that may wish to investigate it in more detail. In this endeavour, it can be worth remembering that the realities of implementation are often messy, power imbalances in ostensibly egalitarian processes are rarely explicit, and apparently clear demarcations become blurry when looked at in increasing detail. This working paper provides a rough, and partial, basis for more detailed future analysis.

If IPBES achieves similar international standing for biodiversity as the IPCC has for climate change, it will have increasing influence over international discussions about the governance of nature and its benefits to people. In light of this, it should be

remembered that knowledge is not a neutral input to decision making in environmental governance (Turnhout et al. 2016). As such, paying greater attention to the precise mechanisms of knowledge production can be understood as another significant part of the deliberative process (Miller 2007). In order to contribute to this process for biodiversity governance, this working paper draws attention to the institutional arrangements of IPBES with the purpose of facilitating broader participation, greater accountability, and more extensive scholarly analysis on the Platform.

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