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Ensuring the success of IPBES: between interface, market place and parliament

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After years of protracted negotiations, the Intergovernmental science–policy Platform on Biodiversity and Ecosystem Services (IPBES) was finally established in 2012. One year on and we have already witnessed two plenary sessions which have, so far, defined procedures for nominating members for observatory and decision-making panels as well as experts and knowledge holders for the compilation of reports. The sessions also determined the work programme for the next 4 years (2014–2018). According to its internally formulated criteria, the success of IPBES will be determined by how credible, relevant and legitimate its institution and operations are. More specifically, these criteria suggest that success is contingent on the transparency of the processes within IPBES, the autonomy and quality of scientific knowledge, and the early integration of different stakeholders and diverse knowledge and value systems. Currently, we see IPBES encompassing open and integrative approaches as well as providing a convenient trading floor for particulate and opaque agendas formulated elsewhere. In any case, without the backing of large and effective publics the policy–support function of IPBES will be limited. Local capacity building and supporting communities to actively participate in research projects dealing with biodiversity are essential for furthering a practical and emancipatory understanding of the relationship between political and economic decisions, the state and functioning of biodiversity and ecosystems, and current and future human well-being.

1. Introduction

The issue of biodiversity loss, the anthropogenic extinction of species, ecosystems and forms of life, has assumed a new kind of urgency since becoming the focal point for a dedicated regime of global environmental governance. The implementation of the Convention of Biological Diversity (CBD) in 1992 after the Earth Summit in Rio set in motion a series of global scientific interventions, such as the four successive Global Biodiversity Outlooks (<https://www.cbd.int/gbo/>). Coinciding with the Global Biodiversity Outlook and intended to address the consequences of biodiversity and ecosystem destruction for human well-being was the scientist-led Millennium Ecosystem Assessment (MEA 2001–2005), which adopted a multi-scalar approach and opened assessments for different kinds of knowledge [1]. Amidst different conventions, guidelines and assessments a call for a more sustained and systematic approach, particularly one that would actively support policy, emerged in the mid-2000s. Driven by representatives from parts of the scientific community (e.g. DIVERSITAS and BioGENESIS, International Union for the Conservation of Nature (IUCN)), a consultation was launched with the objective to establish an International Mechanism of Scientific Expertise on Biodiversity. This resulted in a request to the United Nations Environment Program (UNEP) to establish an intergovernmental science–policy interface for biodiversity similar to the one already in place for climate change, the Intergovernmental Panel on Climate Change (IPCC). This eventually led to the design of the Intergovernmental science–policy Platform on Biodiversity and Ecosystem Services (IPBES), which aims to build on previous achievements and translate findings into recommendations for policy—a facility which the MEA failed to properly operationalize.

A series of contributions from both social and natural scientists [2–7] have critically accompanied and appraised the development of IPBES. These have focused on the importance (and difficulty) of ensuring that IPBES remains open to heterogeneous knowledge and experiences (beyond peer-reviewed scientific expertise) and the problem of scales (no one-size-fits-all solutions), while also cautioning against neo-liberal new public management doctrines that favour the monetization of biodiversity above any other conceptualization. In addition, these contributions have made apparent the contestations around seemingly self-evident terms such as ‘transparency’ [6] and ‘trust’ [2]. We wish to add to these important commentaries by attending to some of the interim outcomes of the IPBES process in relation to the success criteria (credibility, relevance, legitimacy) that have been stipulated for IPBES as part of the 2010 Busan outcome. While we agree with much of the previous commentary, we wish to advocate for: (i) an ongoing examination of the concrete and situated practices that constitute the IPBES process, and (ii) for a less normative and more nuanced and locally sensitive understanding of ‘success’.

2. What is success?

How can we figure success within the framework of IPBES? Given the lack of scales and units against which ‘strengthening the science policy interface [...] for [...] human well-being’ can be measured, it is difficult to ascertain to what extent IPBES will succeed. Yet, we can direct questions about success (and failures) at the performative aspects of IPBES, that is, the manner in which it has so far carried itself. Here, the notion of success encompasses both what is achieved and how this is done [8]. As noted earlier, the key success factors; relevance (or salience), credibility and legitimacy are difficult analytical categories which have migrated from political science [9] into the discussion of science–policy interfaces (SPI), where they have become firmly installed as independent *a priori* criteria. While this is certainly convenient and rhetorically powerful, it also runs the danger of being vacuous. IPBES encompasses many complex issues, different actors and disparate sites and we would like to ask how, concretely, credibility, relevance and legitimacy can look like, or rather, how they can be achieved within the convoluted and messy arenas of political representation, decision-making and scientific assessments.

Principally, we suggest that credibility, relevance and legitimacy are contingent achievements of collective dynamics that involve different stakeholders, affected groups and publics: they are not universal, they are not fixed and they cannot be summoned at will. In order to recover some of their concrete qualities, we suggest that questions should be directed at very specific instances of the extensive and heterogeneous processes and interactions between scientists, stakeholders, policy-makers, publics and other actors that are currently engaged in ‘making’ IPBES [10]. In other words, any evaluation needs to specify the relevance, credibility and legitimacy of what and for whom [11]. Doing so, not only links these categories to concrete practices, but also expands and multiplies them: given the collective dynamics shaping IPBES there are different versions of relevance, credibility and legitimacy that might not be commensurate with each other but that might still lead to successful outcomes.

3. IPBES in action

Given its relatively brief existence, a number of important decisions have been taken which will determine the further development of IPBES.

(a) The conceptual framework

The conceptual framework (IPBES-2/4) presents the central perspective of IPBES, it embodies its worldview so to speak and is meant to ensure the coherence and coordination between the Platform’s functions using a multi-evidence approach (http://www.ipbes.net/images/decisions/Decision%20IPBES_2_4.pdf). It defines key terms (e.g. biodiversity, ecosystem, human well-being), sets the relationships between them and delineates its sphere of action. In doing so, the conceptual framework determines how the problem (loss of biodiversity and ecosystem function) is understood and, in turn, how to ameliorate it. In relation to assessments for example, it will guide scaling (from national to regional to global) and comparison of impacts. Developed in a series of expert workshops and approved at the 2nd plenary (Antalya, Turkey, December 2013), the framework’s central element is a diagram that displays concepts and their relations. Described as a ‘a tool for the achievement of a shared working understanding across different disciplines, knowledge systems and stakeholders’ (§3), it ‘includes six interlinked elements constituting a social-ecological system that operates at various scales in time and space: nature; nature’s benefits to people; anthropogenic assets; institutions and governance systems and other indirect drivers of change; direct drivers of change; and good quality of life’ (§4).

(b) The work programme

The work programme as decided in Antalya comprises four main areas: (i) capacity-building; (ii) assessments at sub-regional, regional and global scale; (iii) assessments for topics and methods; and (iv) communication and evaluation. The main emphasis rests on *thematic assessments* which will cover land degradation and restoration, invasive species as well as sustainable use and conservation of biodiversity. In addition, *fast-track assessments* will generate quick reports on pollination as well as on methods (scenarios and models). During IPBES-1, it was agreed that topics for assessments could be suggested primarily by governments and multilateral agreements (e.g. CBD). Suggestions from non-governmental organizations (NGOs), science initiatives and networks and others are ‘taken into account, as appropriate’. Assessments are carried out by the Multidisciplinary Expert Panel (MEP) and task forces and ‘will be based on existing scientific literature and indigenous and local knowledge, and draw on the work of existing institutions’, such as the Food and Agricultural Organization and the IPCC (IPBES/2/17/Annex V/II/D). The intersessional period in 2013 saw a sustained debate involving different stakeholders and international workshops that sought to recommend the prioritization of assessments. The German Network of Biodiversity Research (nefo), for example, collaborated with the Belgium Biodiversity Platform, the French Fondation pour la Recherche sur la Biodiversité, the Swiss Confederation and the UK Department for Environment, Food & Rural Affairs on the ‘Pan-European stakeholder consultation to support the intersessional process of IPBES (PESC)’ (<http://www.biodiversity.de/index.php/ipbes/nefo-aktivitaeten-zu-ipbes/workshops/pan-european-stakeholder-consultation>).

Box 1. How to engage as a stakeholder in IPBES.

How to participate as scientific stakeholder?

- Become member of the MEP
Proposed by regional groups consisting of national governments and elected by plenary according to regional, disciplinary, ... representation
- Be (coordinating) author of assessments or member of task forces
open calls, partly channelled via governments, selection by Bureau
- Write papers, develop databases, ... being relevant and are cited in IPBES assessments

Additional ways how to participate as stakeholder

- Suggest topic for assessments
channelled via governments, MAs, NGOs, ...
- Become member of the IPBES Engagement Forum
via googlegroups (<https://groups.google.com/forum/#!forum/ipbes-engagement-forum>)
via LinkedIn (http://www.linkedin.com/groups/IPBES-Engagement-Forum-6582331?trk=my_groups-b-grp-v)
via Facebook (<https://www.facebook.com/IPBES>)

The component *Capacity Building* is meant to enhance training and infrastructure and will result in four deliverables. These combine prioritizing needs and development of capacities (and matching resources) with establishing procedures for integrating traditional and local knowledge and for addressing 'priority knowledge and data needs for policy making'. *Communication and evaluation* has so far not been discussed and will be explored in future IPBES plenaries.

(c) Stakeholder engagement strategy

'Relevant stakeholders' can comment on documents under review, attend plenary sessions and deliver statements if given the floor by the session chair. The impropriety of this clause was conclusively demonstrated when, during IPBES-2, the chair of a working group on budget excluded all stakeholders for the remainder of the plenary after one unpopular stakeholder's statement as told by an observer. Stakeholders are also permitted to put forward experts for nomination by the MEP for working groups and task forces. Current stakeholders (not covered by the stakeholder engagement strategy (SES)) comprise environmental NGOs such as the World Wildlife Fund, scientific bodies and networks such as IUCN, universities (e.g. University of Cambridge), United Nations (UN) agencies, indigenous peoples and local communities, regional governments and networks such as Local Governments for sustainability (ICLEI) and industry lobby. Next to multilateral agreements which already have a privileged status with regard to submit requests, during IPBES-2 an official Cooperation Agreement was concluded with UNEP, United Nations Educational, Scientific and Cultural Organization, Food and Agriculture Organization of the United Nations and the United Nations Development Programme. Other stakeholder institutions have an observer status—if already registered during IPBES-1—allowing them to visit the sessions of the plenary. The SES is meant to formalize, ensure and protect the inclusion of stakeholders and their participatory rights. A stakeholder tried to introduce the SES into the official agenda of IPBES-2 but this failed. Consequently, the SES was neither acknowledged nor decided. Despite the lack of an official stakeholder mechanism, there are several ways to engage, for example, as a scientific stakeholder (box 1).

4. Discussion

(a) Conceptual setting of IPBES

How might the criteria of relevance, credibility and legitimacy come to matter in the processes and outcomes presented above? And can they be regarded as straightforward indicators for the success of IPBES overall? It is undoubtedly a remarkable achievement to have agreed on a document like the conceptual framework, which clearly manifests IPBES' attempt to integrate local and traditional knowledge as well as multiple scales. By including terms such as 'Mother Earth', 'Nature's gifts' and 'Living in harmony with nature', the framework accounts for non-Western cosmologies while also acknowledging the contingency and ambiguity of concepts like 'quality of life'. These are, the framework concedes, 'highly dependent on place, time and culture' (§15). Accordingly, the fast-track assessment on pollination 'will include indigenous and local knowledge perspectives on pollinators and pollination systems and their benefits to those knowledge holders' (IPBES/2/17/Annex V/3/8). Even the fast-track methodological assessment of scenarios and modelling of biodiversity and ecosystem services is set to examine 'the feedbacks between biodiversity, nature's benefits to people, good quality of life, institutions and governance, and using scenarios and models' (IPBES/2/17/Annex VI/III/13). But while the framework's language has evidently been taken up, it remains to be seen how practically relevant it will be, especially in relation to the multi-evidence-based approach sought by IPBES. What might perhaps be even more critical is the consultation and incorporation of other knowledge, disciplines and experiences in deciding the actual topics and themes for assessment. For the moment, these appear to be set with no notable recourse to the broader perspectives invited by the conceptual framework. On a more conceptual level, the diagram in the framework suggests an unequivocal and mechanistic characterization of causes and effects very much in contrast to the ambiguous terms it employs. Here, discrete elements (such as nature, drivers, assets, systems) are linked through clear functional relationships that are, according to implicit expectations, based on statistically settled observations, experiments or

modelling. The concurrent causation links human overexploitation of biological resources to reduced abundance and diversity of key species, which are, just as the functional relationships, expected to be confirmed by a narrowly defined scientific review process. These conceptualizations distribute agency and efficacy quite unevenly: nature is passive and only changed through human intervention; biodiversity loss is a problem of excessive pressures (rather than business as usual) and quantification is presented as the precondition for any remedial action. Adhering to this order denies many concrete experiences of biodiversity loss and destruction as well as other conceptions of diversity, nature, human intervention or evolution.

Human well-being, a term which invites various interpretations, appears as a central component of the conceptual framework and is seen to variously depend on nature, Mother Earth and ecosystem services. BioGENESIS, a global project of DIVERSITAS providing an evolutionary framework for biodiversity science, stated in its comments to the conceptual framework (<http://ipbes.net/comments.html>) that 'biodiversity provides direct links to human well-being, not only through intrinsic values, but also through option values'. Although the framework diagram expresses the idea that biodiversity changes over time, and that different bodies refer to different scales, it does not acknowledge future options. Diversity, whether genetic, phylogenetic, species, behavioural or functional, allows for adaptation to future challenges and hence provides a crucial future option value [12,13]. As highlighted by the symposium, the preservation of phylogenetic diversity and evolutionary heritage—which partly can be made spatially explicit—is a key for preserving functional diversity and adaptive capacity. The conceptual framework and by extension, the approach of IPBES therefore misses the opportunity to develop a perspective conducive to future developments. This is partly reflected in the choice of assessment topics which might certainly contribute meaningful insights into harmful processes such as the use of certain pesticides but falls short of providing for the solution-oriented entry points suggested by the contributions in this issue.

(b) Governing participation

Concerning the relevance of the assessment process, we might query if the formulation of topics and themes was inclusive and timely. Was it based on broad participatory development? Participation is organized according to UN regions, the naming of MEP members as well as stakeholder engagement processes (e.g. Western European countries organized stakeholder consultations through which interested parties, though mainly coming from natural sciences and environmental NGOs, could table suggestions (<http://www.biodiversity.de/index.php/ipbes/nefo-aktivitaeten-zu-ipbes/workshops/pan-european-stakeholder-consultation>)). During IPBES plenaries, in which documents are adopted, and contact group meetings, in which documents are prepared and finalized, some regions and countries are represented by relatively small delegations. The process is therefore marked by differentials in interests and power (or presence). Relevance, as Jasanoff & Martello [14, p. 5] remind us, 'has everything to do with who has power and resources, including scientific ones, to press for them [relevant issues]'. In that sense, the conceptual framework as well as the governance structure can themselves become devices for arbitrating relevance: if an approach is

not congruent with their established parameters or procedures then it might well be considered irrelevant. Given that IPBES could, like the IPCC, set well-funded tracks for a particular way of doing biodiversity and ecosystem studies, the stakes are high. Perusing the scientific literature it becomes evident that jostling over the 'right way' of doing this work is in full swing, often with the (at times explicit) implication that others are irrelevant. The demands of categories such as 'policy-relevant' may limit the ways in which we might think of biodiversity. The relevance of IPBES as a global institution is the extent to which it will allow 'a measured array of contrasting specialist views, explaining underlying reasons for different interpretation of the evidence' [15, p. 1030]. Representatives in plenary then must remain open to be persuaded by good evidence and interpretation and not obstinately defend interests. In this respect it is important that IPBES should not consider the problem of biodiversity loss as already defined but instead make the framing and re-framing of the problems part of ongoing and open discussions.

Such flexibility—the willingness to learn and, if required, radically change its framing of the issues (and subsequent procedures)—is essential for its credibility. Conventionally, credibility hinges on the perceived quality and trustworthiness of the actors (institutions, organizations, individuals) as well as of the processes, scientific and political ones. It is this credibility (and acceptability) which will also determine the legitimacy of IPBES-related outcomes. In this respect, it is important to bear in mind that negotiations over credibility are not settled in the doing of science (laboratory, journal article) but once knowledge claims begin to circulate. Also often ideas of scientific credibility do not cohere with ordinary ideas of credibility [16]. Given this, it appears counterproductive to defer and effectively bracket off the areas of the work programme concerned with communication and evaluation.

It is possible that IPBES might, at times, be used as a proxy to pursue agendas that are cursory, perhaps detrimental, to the cause at hand. Or that the work pursued in its name might cause hurt and damage elsewhere (the tensions between conservation action and indigenous rights might be one example). As scientists we need to be vigilant about imparting scientific credibility and legitimacy on such interests and about how our modes of abstraction (the values, variables, measures we use) exclude others. It is therefore crucial that IPBES procedures and decisions are made transparent, for example, by providing ways for meaningful participation (box 1), by having media representatives in plenary and by fostering and presenting pluralistic debates. Without actively appealing to, engaging and raising publics (on local and global scales), the relevance and legitimacy of IPBES will remain marginal. IPBES currently makes publicly available review documents and the comments received from governments and stakeholders but, once an item has been approved in plenary, these disappear from its website. In some cases, the comments that matter will be delivered in contact groups or potentially contentious comments will be delivered using other, less public, avenues. For transparency purposes, it would be advantageous if IPBES commits to a permanent and open archiving of comments received. This would render visible the genealogy of decisions and support a more specific understanding of the various interests at work.

The MEP will be the second most important body as it shapes the outcomes (the assessment reports) of IPBES. Its credibility will in large parts depend on procedures. For

example, nominations for the MEP have been made public and it is evident that the number of nominations varied greatly between regions. Final nominations, however, were discussed behind closed doors. This made it impossible to know the actually applied criteria. From the scientific perspective, credibility will be shown if the MEP will be able to organize an assessment process that includes different perspectives and is not impacted by state political or economic interests. However, a first reflection on the constitution of the MEP shows a bias towards male experts (19 men, six women) and natural scientists (http://ipbes.net/images/documents/MEPBureau/Lessons_learned_from_the_IPBES_Interim_MEP.pdf).

Aside from applying to issues of governance such as election processes, transparency is also an important factor for the scientific work. Here, methods used in the assessments (including data, tools, literature, models) should be made publicly accessible [17]. The process of gap analysis and preparation of assessments should rely on scientific information which is gained independently from financial, strategic or other interests.

(c) Achieving legitimacy

One of the main reasons to establish IPBES was the promise of legitimacy as the MEA did not have a mandate from all countries. The IPBES plenary represents all member countries, a fact that gives the appearance of institutional legitimacy. However, representation of the countries differs and it is often difficult to ascertain what is being represented (e.g. trade interests, access to resources, etc.). While for example in Germany, the environmental ministry (BMUB) heads the delegation, in UK this is done by the department for Environment, Food, and Rural Affairs (DEFRA), Brazil is represented by the Ministry of External Relations and the US by the State Department. The legitimacy of political institutions is dependent on the support and active involvement of the people and similarly, the legitimacy of knowledge depends on knowledge producers *and* their audiences. As St Clair [18] has shown in her study of poverty and the World Bank, the audiences which are appealed to for legitimacy are often either dependent on or created by the expert organization seeking legitimacy. For the moment, the audience for IPBES are members of national governments and parts of the scientific community as well as representatives of groups that are affected by biodiversity loss and those that are set to profit (or indeed not profit) from IPBES-related decisions such as agribusiness.

Many stakeholder groups complain that their ideas, approaches and interests are not adequately considered and are calling for a broader stakeholder consultation process. While this may increase relevance due to the higher number of persons, groups and organizations participating this also may undermine legitimacy: stakeholder groups are geographically unequally distributed, they are normally not democratically elected (e.g. industry lobbies) and are dominated—at least the visible ones around IPBES—by Western approaches to science and participation. So while on one hand the integration of stakeholder knowledge is appreciated, the internal composition of stakeholders requires scrutiny and balance.

Another shortcoming with regard to legitimacy is the composition of the expert groups which will be assigned by the MEP to author the assessments. While for the MEP as described some quotas have been applied we expect the experts to be

more biased. One reason is that the pool of scientists is larger in Europe and the USA than in Africa or Asia. There are more peer-reviewed publications from Western scientists available, and they also have more resources with regards to (staff) time which allow them to afford working free. Accordingly, a bias towards male scientists in their mid-to-late career (tenured) from Western European and Others Group may occur.

5. Conclusion

After two plenaries, IPBES is at a crossroads. While many of its original intentions were about ensuring diverse and inclusive representation and knowledge on different scales, its current conduct shows signs of becoming dominated by competing interests (for example, from trade and development policy realms). The consensus principle gives room to implicitly negotiate issues quite outside the range of IPBES as univocal results are required. Debates in plenary already resemble some of the attitudes we have come to expect from the CBD Conference of the Parties (COPs). This is ironic (and regretful) given that IPBES is the de facto successor for the CBD's policy-support function, the Subsidiary Body on Scientific, Technical and Technological Advice (SBSTTA) which had been considered too 'political' [19].

However, IPBES can provide the space and the means for relevant and effective science-policy debates, even if these are happening not in plenaries but elsewhere. Three main commitments will have to be integrated in its further development: a commitment to support conceptual and practical plurality and resist one-size-fits-all approaches, a commitment to learning and substantial transformations towards a science-policy-society interface (not just incremental adjustments), and a commitment to expand participation of stakeholders in a way that reflects global citizenship. This applies to the plenary but also to the scientific work underlying the assessments: the integration of different disciplines and perspectives (such as evosystems [20], socio-ecological production landscapes and seascapes, multispecies ethics) as well as non-expert groups engaged with biodiversity and ecosystem services would substantially enhance the possibility for legitimate, relevant and credible knowledge and interventions. The growing citizen science movement, such as the recently established European Citizen Science Association (ECSA) or the US Citizen Science Association (CSA), could offer relevant inputs. Global deliberations on the costs and opportunities of conserving biodiversity can be helpful, an interesting example are the WorldWideViews on Biodiversity which took place before the CBD COP 10. In addition, it will be important for scientists and others to critically accompany IPBES and to stir wider debates as some have already done and undoubtedly will continue to do [17,21–22].

The language of international diplomacy that we find in the Busan Outcome with its appeals to noble universal values belies the messiness of everyday science and politics—dissenting interpretations and interests are the very engines for both science and politics. There is no single definitive understanding of the rate of biodiversity loss, on how to 'measure' biodiversity, on how best to conserve biodiversity, on the parameters of human well-being, sustainability or participation and, indeed, on the nature of biodiversity. But it is only by supporting this plurality of approaches, by, as the

philosopher Isabelle Stengers urges, turning contradictions into contrasts [23], that IPBES and our mission to reduce biodiversity loss can succeed.

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