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Item 8 of the provisional agenda*

**Review of the Platform at the conclusion of its
first work programme****Report on the review of the Platform at the end of its first work
programme****Note by the secretariat**

1. As part of the first work programme of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), the Plenary, in its decision IPBES-2/5, requested the Multidisciplinary Expert Panel, in consultation with the Bureau, to develop a procedure for the review of the effectiveness of the administrative and scientific functions of IPBES. At its fourth session, the Plenary considered a draft procedure for the review and, in section VII of its decision IPBES-4/1, requested the further refinement of the scope and terms of reference of the review.
2. In its decision IPBES-5/2, the Plenary approved the terms of reference for the review, including an internal and an external element. In the same decision, it requested the Executive Secretary to call for the nomination of candidates for the review panel and to conduct a competitive bidding process for an external professional organization to coordinate the review. The Plenary also requested the review panel, in accordance with the terms of reference, to provide a final report on the review, including recommendations on the implementation of the second work programme of IPBES, to the Plenary at its seventh session.
3. In section VIII of its decision IPBES-6/1, the Plenary took note of the selection of the members of the review panel to perform the review and of an external professional organization to coordinate the review, and requested the Executive Secretary to initiate arrangements for the external review at the earliest opportunity after its sixth session.
4. The annex to the present note, which is presented without formal editing, sets out the report of the review panel on the review of the Platform at the end of its first work programme. The annexes to the report, including reports on the bibliometric study and the media impact study conducted as part of the review, are available at https://www.ipbes.net/sites/default/files/ipbes_review_annexes_final.pdf. Responses to the report of the review panel by the Multidisciplinary Expert Panel and the Bureau, and by the Executive Secretary, are set out in documents IPBES/7/INF/19 and IPBES/7/INF/20, respectively.

* IPBES/7/1/Rev.1.

Annex

Review of the first work programme of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES)

Review report

01 February 2019

Review Panel: Peter Bridgewater, Australia (co-chair); Marina Rosales, Peru (co-chair); Douglas Beard, USA; Kalpana Latikumar Chaudhari, India; Albert S. van Jaarsveld, Austria/South Africa; Karen Jenderedijan, Armenia; Nicholas King, South Africa; Ryo Kohsaka, Japan; Selim Louafi, France; Kalemani Joseph Mulongoy, Democratic Republic of Congo/Canada.



**International
Science Council**

The International Science Council is a non-governmental organization with a unique global membership that brings together 40 international scientific Unions and Associations and over 140 national and regional scientific organizations including Academies and Research Councils.

The International Science Council was selected by the Bureau and the Multidisciplinary Expert Panel of IPBES as external professional organization to coordinate the review of IPBES at the end of its first work programme that was conducted by the review panel.

Lead coordination: Anne-Sophie Stevance (ISC)

Methodological support and expert advice: Zenda Ofir (independent evaluation specialist)

Overall support: Nora Papp (ISC)

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EXECUTIVE SUMMARY

CONTEXT

As the present report is being finalized the World Economic Forum, meeting in Davos, Switzerland, is considering its annual Global Risks Report. Ten years ago, the major risks identified were almost all economic. However, in the Global Risks Report for 2019, two major issues were identified as global risks to business and human society: cyber security and the deteriorating environment. Climate change had been included previously, and the 2019 report features it prominently, alongside biodiversity loss and ecosystem collapse, the global water crisis, and natural (sic) disasters. That the attention of business and political leaders is now focusing on these issues and, critically, on the links and feedback among them, means there is a vital need for clear, unambiguous advice on the status and drivers of biodiversity and ecosystem degradation and, importantly, on options and solutions to address these challenges in an integrated way to achieve sustainable development. Pursuant to its mandate, the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) fills the role of that provider of advice, and our review sits in that context.

In its decision IPBES-5/2, the IPBES Plenary approved the terms of reference for a review process to cover the first work programme. At its sixth meeting, in Medellín, Colombia, in March 2018, the Plenary approved 10 members of a review panel, with broad terms of reference, to provide a review report on the effectiveness of the administrative and scientific functions of the Platform and recommendations to help to frame the second work programme of IPBES, to be considered by the Plenary at its seventh session. Importantly, the review assessed the effectiveness of IPBES as a science-policy interface and its positioning for long-term impact.

OVERALL FINDING

While its antecedents can be traced back to the G8 meeting held in Evian, France, in 2003, IPBES has, in the seven years since its formal establishment and five years of active work, garnered considerable achievements to its name in the area of knowledge advancement in biodiversity and ecosystem services, despite an under-funded budget that is insufficient to support its ambitious but over-committed work programme.

The Platform completed seven assessment reports between 2014 and 2018, with a global assessment of biodiversity and ecosystem services underway and scheduled to be considered by the Plenary in 2019. It has established a governance structure as an intergovernmental platform, rules of procedure, a functional secretariat, a membership of 131 countries and a network of national focal points, partnerships and communities of experts. This provides solid foundations for IPBES to grow. Yet, as with any similar organization, there is always room for improvement. This has been confirmed by the review findings, which highlight several weaknesses among the preconditions and assumptions that

underlie the logic on which IPBES has been designed and implemented. The review, therefore, has set out a palette of potential areas of improvement for consideration by the Plenary.

REVIEW METHODOLOGY

The review panel used an approach combining reflections on an earlier 2017 internal review, a detailed on-line survey, in-depth interviews with a wide range of stakeholders and national focal points. It also commissioned two studies on media and publications and held several focus group meetings on specific issues. This provided scope for triangulation – cross-checking among sources and methods – to help to ensure the credibility and veracity of the findings. It also provided an opportunity for retrospective elucidation and testing of aspects of the change logic or “theory of change” of IPBES – that is, the logic on which its design and implementation have been based in order to realize the intended long-term impact. The review panel considered the extent to which IPBES has been conceptualized, positioned, structured and implemented to date to achieve a long-term impact on science and policy in relation to biodiversity and ecosystem services.

SUMMARY OF FINDINGS

Conceptualization and positioning: The review panel found that IPBES has been built on a solid foundation and will continue to offer a strong value proposition for stakeholders over the next decade. In a crowded landscape it has significant scientific credibility and a clearly defined and important niche as an intergovernmental platform working at the global science-policy interface for biodiversity and ecosystem services. It benefits from a wide sense of stakeholder ownership and several unique features that constitute major strengths. However, its positioning for impact has been impeded by an early focus on producing scientific assessments, with the inherently challenging science-policy interface dimension not yet having been fully addressed, insufficient focus on an explicit strategy guided by a clearly formulated vision and mission, and insufficient synergetic collaboration and partnerships - including with its four United Nations partner organizations (the Food and Agriculture Organization of the United Nations (FAO), the United Nations Development Programme (UNDP), the United Nations Environment Programme (UNEP) and the United Nations Educational, Scientific and Cultural Organization (UNESCO)) and under several multilateral environmental agreements - despite the Platform’s early and laudable recognition of the importance of engaging multiple stakeholders in its work.

Governance, structures and procedures: IPBES has achieved much to date in establishing fully operational governance and operational structures, as well as the necessary rules of procedure. The performance and commitment of the IPBES secretariat and its technical support units are considered particular strengths. However, despite good progress, IPBES continues to face challenges pertaining to its legal status; its gender, disciplinary (especially in the social sciences) and geographic balance; the appropriate inclusion of all knowledge

systems; and ensuring that its governance bodies fulfil clear, essential and useful roles without unnecessary duplication.

Implementation: IPBES has had impressive success in catalysing the generation of new knowledge. The review panel is of the view that the volume of scientific assessments and associated summaries for policy-makers represent a large and important advance in global understanding of the status of and trends in biodiversity and ecosystem services. Yet several critical issues require urgent attention. The policy relevance and actionability of the assessments, especially at the national level, can be improved. Progress has been uneven across the four functions, with the policy support function being the least successfully pursued and slow progress in the Platform's complex yet very important capacity-building efforts. There have been significant and continuously improving efforts to incorporate indigenous and local knowledge into IPBES processes, yet improvements are still necessary, including in engaging productively with indigenous peoples and local communities, and ensuring the participation of indigenous knowledge holders.

Finances: Available resources have been effectively and efficiently managed, and the agreed ambitious work programme has been delivered within available resources. The realignment of financial resources to deliver the assessments amid funding challenges was particularly impressive. The financial measures reflect the turbulent and rapid start of IPBES. Due attention has to be given in the future to managing its net assets, stabilizing its net operating ratio above zero and ensuring a positive operating reserve ratio. The lack of reliable long-term sources of income is of particular concern, and the financial sustainability of IPBES remains vulnerable to fluctuations in voluntary national contributions. The fundraising strategy is not yet convincing with regard to the level of innovation needed to address these concerns.

Emerging impact: It is too early to make definitive statements about the impact of IPBES, as there tends to be a significant time-lag between the production, uptake, influence and long-term impact of such knowledge, and it is generally difficult to predict the pathways by which knowledge will have an impact. IPBES has already made an important and positive contribution to understanding the root causes of biodiversity loss and ecosystem service degradation, and has also had ripple effects in mobilizing academic groups and informal regional environmental and conservation coalitions. It appears to have had significant success in reaching global policy-makers and, to a lesser extent, national policy-makers and scientists not directly linked to its work. It has been much less successful in reaching practitioners (*i.e.*, the implementers of conservation and development projects), and has yet to reach local policymakers, the private sector and citizens. Although IPBES is well positioned to contribute to large-scale systems change, this aspect has not been sufficiently considered in official IPBES decisions.

In the body of the report we provide 45 findings, each with detailed explanation, and these lead to 36 recommendations. Full descriptions of the findings and recommendations are to be found in the report and are summarized in tables at the end of the Executive Summary.

RECOMMENDATIONS

The review panel identified six overarching areas that require the attention of the Platform's membership, leadership, partners and other stakeholders and on which IPBES needs to reflect if it is to fulfil its mandate as a science-policy interface.

1. In order to ensure its strategic importance and sustainability in the long term, IPBES has to be more intentional about its ultimate impact on the status of biodiversity and ecosystem services, and maintain and strengthen its niche, value proposition and comparative advantage in a complex landscape with many competing priorities.

An agreed, clearly articulated vision, mission and adaptive strategy, cognizant of the multiple systems and the ecosystem in which IPBES operates, will help to clarify the role of IPBES as an interface and the ultimate impact that the Platform seeks to achieve as external contexts evolve. Essential to the mission is that the four functions of IPBES¹ are seen and managed as an integrated set. In particular, IPBES should be more robust in recognizing that its ability to have a long-term, sustainable and transformative impact through knowledge generated by assessments will largely rely on its capacity to address more prominently and successfully its other three functions.

2. IPBES has to strengthen significantly the policy dimensions of its work. Building the evidence base is necessary but not sufficient.

The science-policy interface could be created through a co-design and co-production process that should not see assessments as end products; the interface needs to be developed and actively managed. Priorities that are essential to ensuring a more policy-relevant IPBES in the future include:

- a. Using "policy relevance" to frame all aspects of IPBES work, rather than as a procedural mechanism to keep scientific advice in check or avoid the thorny but all too important issue of providing policy options.
- b. Extending the scope of expertise included in IPBES to encompass practitioners, including managers of biodiversity assets.
- c. Developing capacities in respect of how the policy process works and how to generate policy choices as part of IPBES assessment products.
- d. Addressing knowledge needs in a more nuanced manner, including the need for more explicit efforts to provide simple arguments on why biodiversity and ecosystems services matter, and the need to provide actionable evidence, tools and options to a range of public and private decision-makers.

¹ The functions of IPBES are to identify key scientific information needed for policy-makers; to perform regular and timely assessments of knowledge on biodiversity and ecosystem services; to support policy formulation and implementation; and to prioritise key capacity building needs to strengthen the science-policy interface.

- e. Including a range of policy options from which decision-makers can choose, with assessments of risk or avoidance against all such options.

3. IPBES has to do more to address the tension between the global and regional scope of its work and recognize the essentially national and local nature of implementation.

IPBES processes and products have to be useful at the national level, where policies and strategies are designed and implemented to address demands and needs from the local level to the global level. Assessments should, therefore, be scoped and shaped with stronger engagement of policy experts, policy practitioners and biodiversity managers. Ongoing dialogues and processes of engagement with national focal points can be considered to help to ensure that the generated knowledge can be integrated into national plans.

4. IPBES has to develop a clearer and more strategic approach to its stakeholders, including by clarifying its partnerships strategy and allowing for more strategic engagement by a key set of partners.

There is currently a very significant lack of clarity in IPBES regarding the various types of actors that are interested or involved in the Platform, and the limited pathways to participation in IPBES activities. More work has to be done (a) to understand the complex web of stakeholders and potential contributors to deliverables and to navigate the science-policy interface, and (b) to engage them in IPBES processes in a more collaborative, and appropriate fashion. Stakeholder engagement should not be considered solely as the responsibility of the secretariat; instead, its importance at multiple levels, including the national level, should be recognized and influence IPBES operations. A differentiated approach to stakeholder engagement should be taken that allows actors to engage substantively in IPBES work in accordance with their status and capacity with a view to leveraging their institutional support, expertise and operational capabilities, and for these actors to more directly benefit from engaging in IPBES. This is essential in the densely populated institutional landscape and in view of the need to mainstream biodiversity among a range of sectors.

5. While assessments have - for good reason - featured prominently among the early deliverables of IPBES, and will remain at its core, care has to be taken to streamline and strengthen relevant processes while not neglecting other important deliverables and priorities.

It will be important to view and manage assessments as a process rather than an end product. Much is known from the literature about what makes assessments a success, whether at the local, national or global level, and lessons should be drawn from these experiences. Among others, greater emphasis on cross-disciplinary, cross-specialist and cross-sector coproduction across multiple knowledge systems – and with continuing emphasis and innovation around ILK – will be essential. The rapid pace of assessments to

date might have to become more measured in the future in order to consider ways to diversify and modernize (a) aspects of the engagement, production and communication processes, and (b) the type and foci of the products, in order to serve a variety of well-targeted and influential audiences. At the same time, the interdependence and co-evolution of actions and results towards the desired impact require that other relevant IPBES deliverables and processes such as policy support tools and methodologies and capacity-building efforts, which are important components of IPBES functions, not be neglected.

6. IPBES members, its partners and other committed stakeholders have to do more to help to ensure its financial sustainability in the long term.

The importance of IPBES as an initiative with potential for impact from the local level to the global level has not been reflected in a corresponding commitment of resources from national or international sources. The situation calls for much more focused efforts by all concerned to secure contributions from members; to better mobilize and recognize in-kind contributions; to match aspects of the work programme with available resources; to further develop partnerships, including through alliances with entities in sectors and fields of work that traditionally have not been engaged in IPBES; to explore other possible modalities of work;² and to launch specific projects to raise earmarked funds. It will also require IPBES to develop more sophisticated narratives to explain and position itself amid increasing competition worldwide for resources – whether financial, in-kind or in the form of expertise.

As with all reviews, some of the detailed recommendations that follow might have greater significance than others. However, it is the panel's view that, at least initially, they should be considered as a set, with a strong focus on the six overarching priorities outlined above.

² For example, through the use of web-based tools for reviewing the literature, machine learning approaches and better adapted strategies and systems for monitoring and evaluation and knowledge management.

TABLE OF FINDINGS

ORIGINS, CONCEPTUALISATION AND POSITIONING OF IPBES	
Finding 1	The creation of IPBES resulted from a protracted, complex and difficult process of discussion and international negotiation, which has helped to create a wide sense of ownership and provided a solid foundation from which the Platform can develop over time.
Finding 2	IPBES offers a strong value proposition for stakeholders that will last for at least the next decade - if its implementation progresses well. The latter can still be improved with respect to its policy support mandate and, to a lesser extent, with respect to its capacity-strengthening and knowledge-generation efforts (a significant part of its value for stakeholders).
Finding 3	IPBES has unique features that constitute major strengths: <ul style="list-style-type: none"> • It has a large membership and intergovernmental status; • It seeks to address four functions explicitly as part of its mandate; • It is inclusive of all sources of knowledge, and open to the participation of stakeholders; • It experiments in using different worldviews to inform its outputs.
Finding 4	There is a need for a more explicit and formal IPBES vision and mission that is linked to an overall strategic framework, which are prerequisites for a modern and forward-thinking organization. The lack of a unified vision and mission results in different views and expectations among the various experts, members, partners and other stakeholders taking part in the Platform regarding what IPBES is, what it is trying to achieve and where it should focus.
Finding 5	IPBES is clearly perceived and accepted as an intergovernmental global science-policy interface for biodiversity and ecosystem services, with the interfacing role of IPBES seen as adding important value in a crowded institutional landscape. However, there are divergent views of what that interfacing role entails.
Finding 6	IPBES has prioritized building its scientific and technical credibility over policy application and subsequent implementation in its first years. While that is both understandable and in some ways desirable, IPBES is operating largely as a science-based organization that has yet to fully engage with and effectively navigate the interface between data, science, policy and practice, and thereby bridge the gap between knowledge and policy. Such navigation requires time, resources, and engagement from all members, partners and

	other stakeholders of the Platform to yield results. Finally, there is a tacit expectation that knowledge will have influence, just by “being”. This is not a valid assumption.
Finding 7	The issue of partnership is crucial for the positioning and acceptance of IPBES. The stakeholder mapping shows a very complex landscape of organizations and stakeholder groups that could be or are already interacting and collaborating with IPBES as partners. While IPBES has formalized a number of partnership agreements in the course of the first work programme, their effective implementation has been hampered by the single formal status of observers available to all non-members and non-State actors (partners or otherwise), which has prevented their full strategic engagement. In addition, the current IPBES stakeholder strategy has not enabled the degree of synergetic collaboration and engagement with the range of stakeholders envisaged at its establishment.
Finding 8	Despite much activity early on in shepherding the process of the Platform’s formation, even at one stage by proposing to jointly provide the secretariat, the potential value of the four United Nations organizations (FAO, UNDP, UNEP and UNESCO) is significantly under-utilized, or even poorly understood, by all parties.
Finding 9	While interactions with the secretariat of and the Conference of the Parties to the Convention on Biological Diversity have been positive and mutually supportive, there is room for stronger collaboration and alignment between IPBES and the other biodiversity-related multilateral environmental agreements at both formal (Conference of the Parties) and informal (secretariat) levels.
Finding 10	IPBES identified early on the importance of stakeholder engagement in its work and should be commended for that. At the same time, early implementation has been tentative.
GOVERNANCE, STRUCTURE AND PROCEDURES	
Finding 11	There is confusion regarding the legal status of IPBES among IPBES stakeholders and even national focal points. IPBES is often perceived as a United Nations body rather than an intergovernmental platform. While the IPBES secretariat is hosted and administered by UNEP, the Platform is an independent body with its own governance structure.
Finding 12	The founding principle of being policy relevant but not policy prescriptive has been implemented primarily through a set of procedures (e.g. calls for requests and input, the review and negotiation of summaries for policymakers) rather than through strategically framing the work and

	<p>outputs of IPBES and enabling the engagement of the policy and practitioner side throughout the process. Although other sources of knowledge have been incorporated into IPBES products to varying extents, it is science that has received the pre-eminent treatment and focus. This is likely, at least in part, the result of the mandate and principles by which it operates - specifically, by trying to walk the fine line between being relevant to policy and effective in communicating its key messages, while not being overly prescriptive in the policy and implementation choices offered.</p>
Finding 13	<p>For participation in all bodies of the platform, the principle of geographical balance among the five United Nations regions as well as overall gender balance has often resulted in slates of nominations that are balanced geographically and, to some extent, in terms of gender, but are not well-rounded in terms of disciplines and relevant skills. In the longer term, this risks undermining the credibility of IPBES.</p>
Finding 14	<p>IPBES still appears to have difficulty in engaging expertise beyond experts in the fields of biodiversity and ecosystem services. There are well-identified gaps in expertise, notably in the social sciences, that can potentially compromise its capacity to meet its overall mandate and influence policy.</p>
Finding 15	<p>In this initial implementation phase of IPBES, significant efforts have been made to elaborate, refine and adopt a set of rules of procedure governing all aspects of IPBES work. But it is worth noting that they are difficult to access as they are distributed across a range of decisions, and other information resources on the IPBES website.</p>
Finding 16	<p>IPBES governance structure appears to many participants to be over-engineered, with an overlap in the duties of the MEP and Bureau, often leading to a duplication of effort and an unclear segregation of duties, which runs contrary to the principles of good governance.</p>
Finding 17	<p>Ensuring scientific independence - a fundamental rationale for setting up two subsidiary bodies - has been perceived not to work in practice. Such a perception is counterproductive for an organization with a goal to strengthen the interface between science and policy. The principle of scientific independence and the appropriate segregation of duties - which remain of critical importance to ensure the legitimacy and credibility of IPBES - should be strengthened through revised modalities.</p>
Finding 18	<p>The performance of the IPBES secretariat, the competence of its staff, and its strong commitment to the mission of IPBES is widely commended. The work of the secretariat is perceived to be a strength of IPBES, and the technical support units (as part of the secretariat) are also perceived positively. However, the chronic work overload of the secretariat, and the</p>

	lack of visibility and recognition of the work of the technical support units are issues of concern.
Finding 19	The IPBES website is not fit for purpose, although it has seen some improvements. It is unwieldy, not user-friendly and often lacks the information that is most often sought.
Finding 20	The establishment of supporting bodies (e.g. expert groups and taskforces) to the Plenary is a grey area in terms of structures, defining objectives, accountability, status, utility of outputs and sunset clauses.
IMPLEMENTATION OF THE FIRST WORK PROGRAMME	
Finding 21	The large volume of scientific assessments, and the associated summary for policy-makers adopted by Plenary, represent a large advance in our global knowledge of biodiversity and ecosystem services, and have contributed to the building of understanding and capacity among a range of knowledge brokers and policy developers and to the transfer of knowledge across the knowledge-policy interface.
Finding 22	<p>While it may be premature to assess the policy impact of the assessments produced by IPBES to date, there are several factors that limit the policy relevance of the assessment process and the reports, and therefore their likely influence on policies and decisions in the long run. They include:</p> <ol style="list-style-type: none"> a. IPBES tends to see assessments as end products rather than as part of a wider, more complex and longer-term process to influence policy; b. Members of the assessment scoping teams have been largely dominated by natural scientists (working on biodiversity issues), and an analysis of the scoping documents found little reference to either the co-production of assessments as a core approach or to communications or capacity-building activities that would occur in conjunction with the assessments. The regional assessments included more capacity-building efforts as part of their activities; c. With the exception of the pollination and pollinators assessment, their scope is often seen as occurring over scales that are larger than that by which biodiversity management typically operates; d. IPBES assessments have not sufficiently incorporated reviews of the effectiveness of existing policies. e. IPBES tends to see assessments as the ultimate products to influence policy.
Finding 23	Linked to the previous finding, the lack of policy considerations in the process results in summaries for policymakers that are often too generic and do not allow Governments to take immediate and effective action in their

	own territories, even though they may be helpful in international discussions.
Finding 24	There are a range of knowledge management approaches and tools now available, in particular for literature reviews and evidence synthesis, that could usefully supplement the formal policy-driven intergovernmental process. Other alternative mechanisms for assessing the state of knowledge on issues (e.g. web-based assessments and machine learning approaches) are becoming increasingly available and could help IPBES to build on its core strengths (e.g. its inclusive and experimental nature).
Finding 25	During its first programme of work, IPBES had noteworthy successes in catalysing the generation of new knowledge. Regarding data management, there has been insufficient attention to developing an infrastructure, standards and guidance for systematically recording the data used in assessments, which is an important consideration to ensure that the work of IPBES is cumulative.
Finding 26	The policy support mechanism of IPBES has been implemented primarily through the development of an extensive online catalogue of policy support tools. However, a range of sources suggest that the policy support function remains the least successfully pursued of its functions.
Finding 27	The capacity-building function was a key element of the Busan outcome (UNEP/IPBES/3/3, annex). Capacity-building was recognized as being necessary to lift the level of global scientific expertise in biodiversity and ecosystem services and to provide capacity for new data acquisition, especially in the global South. The Platform has had important success in that regard, especially with the fellows programme. However, broader capacity-building efforts are still lagging in other areas of IPBES work. As the task is enormous, it is expected that a clearer partnership and stakeholder engagement strategy will help over time to improve this situation.
Finding 28	While much has been achieved in the first implementation phase, there is a strong consensus that progress has been uneven across the four functions. The assessment function has clearly been prioritized in terms of outputs, staff time and budget over the other three elements of the work programme.
Finding 29	While recognizing that the scientific output of IPBES has been impressive, the pace at which assessments have been produced raises questions regarding the longer-term sustainability of IPBES work (in terms of finances, in-kind contributions and staff capacity) and the prioritization of the other three functions.

Finding 30	The commitment of IPBES from the start to considering other knowledge systems, especially ILK in its work is widely commended, and efforts have been made to incorporate ILK into IPBES processes, with noticeable improvements and learning over the past few years, not least as part of the ongoing global assessment. However, there is room for improvement.
Finding 31	Engagement with indigenous peoples and local communities seems to have generated important advances but also significant frustrations during the first years of IPBES.
Finding 32	Participation in IPBES, especially by indigenous knowledge holders, has been impeded by the lack of an operational participatory mechanism.
BUDGET AND FINANCIAL ARRANGEMENTS	
Finding 33	The initial capital injection made by Norway together with reliable and regular contributions from several other members, made it possible for IPBES to fulfil many of its obligations under the first work programme.
Finding 34	Some members have contributed only sporadically or not at all to date. This does not bode well for the sustainable operations of IPBES and should be rectified.
Finding 35	The Platform relies heavily on in-kind contributions from the scientific community, partners and nation States, from the self-funded participation of experts from developed countries in the MEP to their participation in assessments and other activities.
Finding 36	Currently, IPBES spends about half its resources on the implementation of the work programme and half on the operation of the Platform and management functions. Most of the funding has been spent on the important regional and global assessments.
Finding 37	The available resources have been effectively and efficiently managed to date. The agreed work programme was effectively delivered within the available resources. However, managing long-term requirements through their alignment with reliable income sources should be a priority for the future.
Finding 38	The re-alignment of financial resources to ensure the delivery of the assessments in a timely fashion for the first work programme, especially considering the funding problems experienced during the process, was effective and impressive. IPBES should be commended for this achievement. However, it may not be easy to formalize the funding of the assessments

	and IPBES in the future, and the Platform will always be vulnerable to fluctuations in the level of voluntary national contributions.
Finding 39	The financial measures clearly reflect the turbulent and rapid start that IPBES made on its new journey. It is important that net assets be well managed in the future, and the net operating ratio must soon be stabilized above zero. The operating reserve ratio is still positive, but the trend is concerning. No information was available to conduct a liquidity assessment, but this should routinely be conducted into the future.
Finding 40	The review panel is aware of the current fund-raising strategy being developed for IPBES to boost the income of the Platform. This is to be encouraged. However, the somewhat restricted attempts to engage the private sector in providing financial support for assessments in exchange for visibility are unlikely to yield significant results for sustainable financing.
TOWARDS GREATER IMPACT	
Finding 41	IPBES' communications have seen steady improvement over the course of the first work programme. IPBES has had significant success in reaching global policymakers and, to some extent, national policymakers and members of the scientific community who are not directly linked to IPBES. It is perceived as being much less successful in reaching practitioners (i.e. the implementers of conservation and development projects). And it appears and to have largely failed to reach local policymakers, the private sector or citizens to date.
Finding 42	IPBES is, in principle, well positioned to contribute to beneficial environmental change and improvements in human well-being. This aspect of its work has not been well-articulated in official IPBES decisions, but is evident in many of its communication materials.
Finding 43	IPBES has made an important and positive contribution to understanding the root causes of biodiversity loss and ecosystem service degradation, and identifying critical knowledge gaps. The launch of IPBES has also resulted in calls for, and offers of, support from academic groups and informal regional environmental and conservation coalitions.
Finding 44	No definitive statements can yet be made about policy impact, as there is significant time lag between the production of global reports and their translation and appropriation by national actors, and multiple sources of information are considered in the policymaking process. However, there are a number of influencing factors within the IPBES sphere of control that should be considered to enhance the potential for impact. They include a

	range of appropriate partnerships beyond Governments that are imperative in order for IPBES to have an impact on policymaking and decision-making.
Finding 45	Partial testing of the change logic or “theory of change” of IPBES – that is, the logic on which its design and implementation have been based in order to effect the desired changes – has confirmed several weaknesses that have hindered or diminished the potential of IPBES to have a desirable long-term and sustainable impact. This increases the risk of slow progress or failure.

TABLE OF RECOMMENDATIONS

ORIGINS, CONCEPTUALISATION AND POSITIONING OF IPBES	
Recommendation 1	A formal vision and mission should be discussed and agreed by the Plenary. The vision and mission should serve to reaffirm the niche of IPBES, which many perceive to be that of an interface mechanism providing authoritative knowledge for policy development and decision-making and delivering through its four functions, which are seen as an integrated set. This vision and mission of IPBES should be supported by a short and well-focused strategic plan that embraces all activities of the Platform, against which future development and performance can be evaluated.
Recommendation 2	The Plenary should, in the context of the next work programme, clarify the various boundaries that IPBES is trying to span as a science-policy interface, along with the requirements and the vision for success in that regard, in order to prioritize and align resources and partnerships and to identify relevant types of outputs.
Recommendation 3	A clear strategy should be developed for enhanced and more synergetic collaboration and engagement with key strategic stakeholders as strategic partners, allowing for differentiation of status (beyond observer status) to enhance mutual benefits.
Recommendation 4	The stakeholder engagement processes within IPBES needs to be reviewed and strengthened to better deliver for the Platform and the stakeholders. In particular, stakeholder engagement should occur throughout the assessment process to implement the true co-production of assessments. This will critically rely on appropriate nominations by the Platform members, partners and other stakeholders, in particular of practitioners, biodiversity managers, policy makers and policy experts, and rely on the capacity to generate mutual benefits and to communicate and coordinate at different scales (interest, capacities and coordination should be developed at the national scale, then be leveraged by IPBES at regional and global scales).
GOVERNANCE, STRUCTURE AND PROCEDURES	
Recommendation 5	The exact legal status of IPBES should be clarified and effectively communicated, as this has wide-ranging implications, including in terms of partnership development, fundraising and communications.
Recommendation 6	The principles of scientific independence and the appropriate segregation of duties - which remain of critical importance to ensure the legitimacy

	and credibility of IPBES - should be strengthened through appropriate revised modalities and procedures.
Recommendation 7	The “policy relevant but not policy prescriptive” principle should be supplemented with a principle on co-design, co-production and co-implementation, with appropriate procedures in place to maintain scientific credibility and independence.
Recommendation 8	IPBES needs to diversify and be more explicit about the different kinds of expertise needed for different activities, and the criteria applied for expert selection, to strengthen the policy dimension within IPBES. In addition to the existing criteria for regional, gender and disciplinary diversity/scientific credentials, criteria aiming to strengthen the capacity of IPBES to operate at the interface between data, science, policy and practice should be included.
Recommendation 9	There is a need to improve the reach of the process for nominating individuals to take part in the Platform’s activities, and to improve the quality of the experts nominated to IPBES. This is a key responsibility of members of the Platform. One approach could be to establish national IPBES committees, chaired by the national focal points that can assist the nomination processes.
Recommendation 10	The separation created by the establishment of the MEP and the Bureau as two distinct bodies has become both cumbersome and seems to add little value. Considering other constraints (notably in terms of the budget and staff time used to support committees), there is an opportunity for a more streamlined governance architecture that the Plenary should consider going forward.
Recommendation 11	The current rules of procedure need to be checked for relevance, updated as necessary and made accessible in a more user-friendly way.
Recommendation 12	There are opportunities for strengthening the impact of the secretariat including through matching expectations with the resources available, administrative processes and reporting lines with the host agency, and the development of an information management strategy.
Recommendation 13	Greater recognition of the critical role of the technical support units within IPBES, e.g. in operationalizing the roll-out of assessments, is required and needs to be formalized and better supported to ensure more consistent engagement of the technical support units in the work of IPBES.

Recommendation 14	IPBES should develop comprehensive guidance on national focal point roles and good practice (while allowing for countries to define their own modalities) and develop dedicated channels for communications between IPBES and national focal points and for interaction among the national focal points themselves.
IMPLEMENTATION OF THE FIRST WORK PROGRAMME	
Recommendation 15	IPBES needs to align the ambitions and scope of its work programme to its budget and staff capacities. The Plenary has a major responsibility in ensuring that the aspirations are met with commensurate resources to deliver on them.
Recommendation 16	IPBES needs to take a more holistic approach to assessments to ensure that both the process and products serve the IPBES goals of enhancing its role as a science (knowledge)-policy interface, helping to address the issues of biodiversity and ecosystems degradation and ensuring the sustainability of its work. The development of policy options needs to be the basis of all phases of any assessment – and indeed of all IPBES work.
Recommendation 17	The Plenary should establish a time-limited taskforce to examine the range of ways that assessments can be modernized, including ways to channel and enable effective engagement, as well as to examine new structures and ways of working (including through digital means).
Recommendation 18	IPBES needs to review its policy support function and the modalities for delivering on it.
Recommendation 19	IPBES needs to strengthen its work on knowledge and data to address gaps and ensure that IPBES work is cumulative.
Recommendation 20	The capacity-building function should be continued and enhanced to support the sustainability and long-term impact of IPBES. It should be tailored to its target audiences (e.g. policy-makers and practitioners) and be a component of all IPBES functions.
Recommendation 21	IPBES should continue to strive to bring ILK and other knowledge systems into all its work.
Recommendation 22	The task force on indigenous and local knowledge in its present form should be urgently reviewed.
BUDGET AND FINANCIAL ARRANGEMENTS	

Recommendation 23	Annual commitments should be aligned with reliable income sources. The agreed work programme should be aligned with the available budget and prioritized as appropriate should short-term adjustments in the work programme be required.
Recommendation 24	IPBES should set a target for the reserves that should be maintained.
Recommendation 25	It may be prudent for IPBES to determine how much of the available budget should be allocated to the different components of the new work programme.
Recommendation 26	IPBES should initiate an internal discussion on how to regularize the income streams from nation States, especially as the intergovernmental nature of the Platform makes it hard to attract non-governmental funding. This can be achieved through a formula-driven system (e.g. one based on gross domestic product (GDP) or on a combination of GDP and purchasing power parity) or an honour pledge system.
Recommendation 27	IPBES should incorporate a series of key financial health indicators (e.g. net assets, net operating ratio, operating reserve ratio and programme efficiency ratio) into its annual financial reporting systems and a liquidity assessment into its annual financial reviews in order to foster a culture of pursuing financial sustainability. Appropriate targets should be specified for each.
Recommendation 28	IPBES should determine an aspirational target to define how much of its annual budget should be earmarked for the work programme and how much should be allocated to the running of the platform and management functions –a 60%:40% split should be aspired to under ideal circumstances.
Recommendation 29	The risk of fatigue in the science community, especially of experienced assessment practitioners who receive little or no reward or recognition, needs to be addressed in some manner. IPBES should track in-kind contributions (secondments, scientists donating their time) and catalysed funding and report on them as part of the budget.
Recommendation 30	There is clearly a need to diversify the funding streams of IPBES, e.g. through increased engagement with foundations, pension funds and the private sector. However, the review panel has found that the ongoing engagements between IPBES and the private/corporate sector are still too underdeveloped and would encourage IPBES to refocus on this issue to enhance its fundraising potential. This is a critical area of work for the

	Executive Secretary, with support from the Head of Development, and Chair of the Platform.
TOWARDS GREATER IMPACT	
Recommendation 31	Further improvements in communications could be achieved through more coverage on television and in other digital media, more placement of opinion pieces and more diversity among IPBES spokespersons. In future communications exercises resulting from assessments and other IPBES products, the key “faces” should be the experts in the subject, who often are best able to discuss results and to consider potential policy and biodiversity management implications, and, for the regional assessments, would have “local presence”.
Recommendation 32	IPBES needs to target its communication towards the primary goal of the Platform, which is to bring evidence to bear in decision-making and to ensure transformative change.
Recommendation 33	IPBES needs to define its pathways to influence policy more systematically and more strategically, recognizing that resources are needed to complete these tasks satisfactorily and that there are partnerships that can be leveraged.
Recommendation 34	The Platform, in partnership with FAO, UNDP, UNEP and UNESCO, should attempt to reach universal membership.
Recommendation 35	IPBES should put in place regular reviews and self-evaluations of its structures, processes and products.
Recommendation 36	During the next work programme, IPBES can strengthen its strategic design and implementation by reviewing, refreshing and/or making explicit the change logic or “theory of change” that underlies the design and implementation of IPBES. In order to support risk management, special attention has to be paid to the likely preconditions and key assumptions necessary for making progress towards and success in achieving the expected or desired impact.

1. INTRODUCTION

As this report is being finalised the World Economic Forum, meeting in Davos, Switzerland, is considering its annual Global Risks Report. Ten years ago, the major risks identified were almost all economic. Yet this 2019 report has two major issues as the global risks to business and human society: cyber security and the deteriorating environment. Climate change has been included previously, and this year's report features it prominently, but alongside biodiversity loss and ecosystem collapse, the global water crisis, and natural (sic) disasters. That attention of business and political leaders is now focusing on these issues, and critically on the links and feedbacks between them, means there is a vital need for clear, unambiguous advice on the status, and drivers that change that status, of biodiversity and ecosystem degradation and importantly options and solutions to address these challenges in an integrated way to achieve sustainable development. The mandate of the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) fills the role of that provider of advice, and our review sits in that context.

Since its establishment, IPBES, as a young intergovernmental science-policy interface for biodiversity and ecosystem services has made considerable progress in helping understand the drivers that are changing the status of Biodiversity and Ecosystem Services (BES) and possible future trajectories. The Platform has made significant advances in bringing both science and other knowledges to the table to help policy makers understand these global dynamics, in the process starting to give voice to Indigenous and local community knowledge holders. Yet, as with any similar organisation, there is always room for improvement in terms of governance, functions, and positioning for impact of the Platform. This review sets out a palette of potential areas of improvement for consideration by Plenary.

The review team believes that the recommendations for improvement, based on findings sourced through the triangulation (cross-checking) of documents, surveys, studies, interviews and group discussions, should be considered for implementation within a 12-month period, to gain maximum effect. The review panel notes especially the need for a concerted engagement by National Focal Points (NFPs) to take IPBES to the next level. As the Platform evolves there is the possibility for IPBES to be a space where governments and a wide range of other stakeholders can share ideas against a clear vision and mission. Efficiently and effectively functioning, IPBES has a critical long-term role to play among the set of international institutions helping nations manage, conserve, use and share BES.

The review team commends this report to the IPBES Plenary, and remains available to assist further if required.

2. TERMS OF REFERENCE, METHODOLOGY AND REVIEW PROCESS

2.1. Context

The Plenary of IPBES mandated a review of the effectiveness of the administrative and scientific functions of IPBES as one of the deliverables of the first work programme (decision IPBES-2/5).

In decision IPBES-5/2 the Plenary approved the terms of reference for the review, including an internal and an external element. The internal review was to be undertaken by the MEP and the Bureau and its conclusions transmitted to the external reviewers. In the same decision, the Plenary requested the Executive Secretary to call for the nomination of candidates for the review panel and to conduct a competitive bidding process for an external professional organization to coordinate the review. The Plenary requested the review panel, in accordance with the terms of reference, to provide a final report on the review, including recommendations on the implementation of the second work programme of IPBES, to the Plenary at IPBES 7.

In decision IPBES-6/1, the Plenary took note of the report prepared by the internal review team and of the selection of a 10-member review panel to perform the review and of the International Science Council (ISC) as the external professional organization to coordinate the review. The Review Panel was formerly appointed at the end of April 2018 and the review panel met for the first time from 25-29 June, in conjunction with the 11th meeting of the MEP and Bureau, as mandated by the Terms of Reference. Subsequent meetings were held from 17-24 October, in conjunction with the 12th meeting of the MEP and Bureau, and a subset of the Panel met on 10-12 December at ISC in Paris.

2.2. Purpose and scope of the review

The Terms of Reference approved by the IPBES Plenary are set in document IPBES/5/15 and reproduced as Annex 2. The mandate of the Review is to evaluate the effectiveness of the Platform as a science-policy interface. In particular, the review is expected to cover the following areas: (i) Implementation of the four functions of IPBES; (ii) Application of the operating principles of IPBES; (iii) Effectiveness of the procedures for the development of IPBES deliverables; (iv) Effectiveness of the institutional arrangements of IPBES; (v) Effectiveness of the IPBES task forces and expert groups; (vi) Effectiveness of the implementation of the financial and budgetary arrangements; and (vii) Effectiveness of processes for stakeholder engagement and communication.

From the Review Panel's perspective, the Review is aimed at both reviewing the effectiveness of IPBES in its initial phase of operations, especially around the areas listed above, but also supporting the continuous improvement of IPBES into the future. This first Review of IPBES does not see its inputs into IPBES as a one-off event but seeks to inspire thinking and debate for the long-term evolution of IPBES.

Importantly, the Terms of Reference do not mention the evaluation of impact, as it was deemed too early to expect IPBES to show policy impacts in its initial programme of work. The Panel is very cognisant of the fact that achieving impacts on BES will take a long time and happens through complex processes that draw on multiple sources of information. The Panel rather made the conscious decision to frame the review of the effectiveness of IPBES towards enabling the Platform to achieve its long-term goal 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.

The External Review has therefore sought to address the strategic question of the extent to which IPBES is creating the enabling environment for it to achieve its goal, and therefore, its potential for greater impact. Has IPBES been conceptualised, positioned, structured and implemented to achieve long-term impact? What kind of policy and science impacts is IPBES seeking to have?

2.3. Approach and methodology

A review matrix was developed (annex 4) to frame the review and draw a set of key evaluation questions from the Terms of Reference. It is structured around five areas and a set of key questions as follows:

1. **Conceptualisation for sustained impact.** How well has IPBES been set up and designed for sustainable impact?
2. **Positioning for sustained impact.** Are the niche and value proposition of IPBES sufficiently attractive to get the necessary visibility, interest and resources in a highly populated institutional environment? To what extent has IPBES been able to resolve the tension between a state-driven and a multi-stakeholder-driven approach? How well has IPBES financing and budgetary management been conceptualised and executed?
3. **Governance, structures and procedures.** Are the governing structure and supporting bodies of IPBES conducive to achieving its mandate? Are the IPBES principles, rules of procedures and criteria in place conducive to achieving its mandate?
4. **Programme of work.** Are there sufficient (i) coherence (synergy, integration, complementarity, consistency), (ii) balance and (iii) effective procedures in the work programme of IPBES to do justice to its (policy) mandate? To what extent have the four functions of IPBES been geared and able to deliver on its mandate within evolving contexts and constraints?
5. **Progress towards sustained positive impact.** Has IPBES made sufficient progress towards intended and sustainable positive impacts?

2.4. Sources of evidence

The review panel collected, collated and analysed evidence from numerous sources. This provided an opportunity for extensive triangulation – that is, cross-checking of evidence from different sources or methods – in order to enhance the credibility and veracity of the findings.

1. **An initial Internal Review** undertaken in 2017 – This focused on an analysis of the internal review report (documents IPBES/6/10 and IPBES/6/INF/32);
2. **Document and literature review** – This desk study including IPBES institutional documents as well as scientific and grey literature produced by IPBES, and by scientific and stakeholder communities, including the considerable and growing academic literature on IPBES;
3. **Stakeholder mapping** – different types of stakeholder mapping were done to inform the sampling strategies for the interviews, surveys and group discussions;
4. **Bibliometric study** - ISC commissioned a bibliometric study looking at the citation impact of IPBES and IPBES products in the scientific and grey literature. The latter focuses on a few institutions selected by the review panel, including UN partner organisations, multilateral environmental agreements (MEAs) and a few key partner organisations (e.g. IUCN). This study was completed by an independent consultant and is available in full as annex 5;

5. **Media impact study** – ISC commissioned a media impact study looking at the reach and level of engagement with IPBES and IPBES products in traditional media, online media, and social media. This study was completed by an independent consultant and is available in full as annex 6.
6. **Online survey** - An online survey was conducted between 18 September and 10 October 2018 which received 360 responses. The questionnaire was distributed by the IPBES secretariat to a list of 14,000+ contacts³ maintained by IPBES which includes the secretariat, technical support units, MEP, Bureau, IPBES experts, national focal points, registered stakeholders and website users. This list of contacts is the most comprehensive list of contacts used by IPBES for its communications (such as call for inputs on work programme or nomination of experts for deliverables). In addition, the International Science Council sent it to its global membership base, comprising 137 national members and 40 unions, as well as its interdisciplinary programmes and scientific networks (around 500 contacts). The questionnaire (annex 7) was made available in English, French and Spanish, the languages spoken by panel members. No budget was allocated to allow a translation in the UN languages of the questionnaire and the responses. Further details on the survey and the results are made available as annex 8.
7. **Interviews** - The Review Panel conducted 60 interviews including 21 organisations with a range of intergovernmental and non-governmental organisations with a varying degree of engagement in IPBES, 8 assessment co-chairs and 31 NFPs across all regions.
8. **Focus groups** - The Panel led a number of group discussions in parallel to the MEP and Bureau meetings (June and October 2018, Bonn) with the participants. The Panel met with the MEAs and UN partners representatives attending the MEP meetings, Secretariat (twice), TSUs, MEP members (two sub-groups), MEP co-chairs and IPBES chair, IPBES Chair and Executive Secretary, and the Bureau. A webinar with a group of 10 academic experts on science-policy interface mechanisms was held in November 2018.

2.5. Considerations

The External Review was conducted over a period of eight months and with a limited budget: the review panel members worked on a volunteer basis as only travel for two meetings was provisioned in the budget (a third meeting of a subset of the panel was also funded by IPBES). No funds were available to conduct in-person focus groups and workshops with IPBES stakeholders. The Panel therefore made deliberate choices on where to focus, and consequently, not all aspects of the review have necessarily been covered with the same level of details. For example, the review would have liked to spend more time on observing plenary processes, to engage with expert groups, task forces as well as existing and potential stakeholder groups.

The delay in starting the review (initially a decision at IPBES 5 to conduct the review but budget only approved at IPBES 6) gave a challenge in ensuring that the review effectively feeds into the preparation of the second work programme, as intended by Plenary.

The process to appoint the review panel members has resulted in a panel consisting of people who have been involved in IPBES (or the process that led to its creation) in various ways as part of national delegations, as stakeholders, or as experts in taskforces, alongside a few who have not been involved. ISC (formerly ICSU) was also involved in the process that led to the creation of IPBES and has an observer

³ Given recent changes in data protection regulations, the review panel was only granted access to an Excel document containing the names of contacts and for some the professional affiliation of the individuals. Information on geographical representation, stakeholder group and the emails of the individuals was not provided.

status in the Platform. The expertise and prior knowledge collectively held by the review team has been a strength in identifying the critical issues, performing the evaluation and help frame recommendations that are relevant to IPBES. But it is also worth acknowledging that, by design, it is not a fully independent review but is a review that is external to the MEP, Bureau and Secretariat.

3. ORIGINS, CONCEPTUALISATION AND POSITIONING OF IPBES

The establishment of IPBES was protracted, complex and difficult. Although some overlaps with existing organizations are sometimes identified, feedback to the panel suggest its current niche and positioning is now clearly perceived and widely accepted though this was not always so. Its intergovernmental nature is seen as an asset and there is a broad consensus that it has a mandate and performs as a science-policy interface. However, there is a wide range of views and perspectives about what a science-policy interface is and should cover. The concept of “boundary organization”, increasingly discussed in the academic literature, helps map out different views about the coordination and participation challenges that are crucial for IPBES’ members, partners and other stakeholders.

3.1. Historical context

The Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services was formerly established in 2012 by representatives of 94 governments⁴ through resolution (UNEP/IPBES.MI/2/9). The Platform has been fully operational since 2014 with a work programme adopted at IPBES-2 (2013), a governance structure in place (1st plenary meeting in 2013, 1st MEP and Bureau appointed in 2013), and a permanent secretariat established in 2014.

A number of actors, and processes shaped the creation of IPBES from the mid-2000’s onwards, outlining the need to assess the diversity of knowledge and supporting policy and implementation for BES, at a time where the Millennium Ecosystem Assessment had just concluded its work, and UNEP had just launched The Economics of Ecosystems and Biodiversity (TEEB). In the last decade there have been many calls for an “IPCC for biodiversity”, largely from the academic/research community. IPCC is often held as “the gold standard for independent scientific assessment”, an analogy that IPBES still uses today to describe itself⁵. However, from the inception, important differences were clear between the issues of climate change and biodiversity: “Whereas climate is driven at the global level, biodiversity change is a more local affair. Backers of the IPBES acknowledge that point; from the outset, the panel will conduct assessments on regional as well as global scales.” (Nature, Vol 465, 3 June 2010).

At a formal meeting in Busan, South Korea in 2010 held under the patronage of UNEP (the third ad hoc intergovernmental and multi-stakeholder meeting on an intergovernmental science-policy platform on biodiversity and ecosystem services), the establishment of IPBES as an independent intergovernmental body was agreed. The Busan outcome document ((UNEP/IPBES/3/3, annex)) *inter alia* gave four key functions for an IPBES to:

- Identify and prioritise key scientific information needed for policy-makers at appropriate scales
- Perform regular and timely assessments of knowledge on biodiversity and ecosystem services, and their interlinkages (including, global, regional, sub-regional and thematic assessments)
- Support policy formulation and implementation (tools and methodologies)
- Prioritise key capacity building needs to strengthen the science-policy interface.

⁴ Number of countries of the resolution in UNEP/IPBES.MI/2/9

⁵ <https://www.ipbes.net/about> (consulted on 13th December 2018)

The Busan outcome document noted that those four functions should be undertaken in response to “requests from Governments, including those conveyed to it by multilateral environmental agreements, related to biodiversity and ecosystem services. Account should be taken, as appropriate, of inputs and suggestions made by relevant stakeholders, such as other intergovernmental organisations, international and regional scientific organisations, environment trust funds, non-governmental organisations and the private sector”.

3.2. Purpose and initial design of IPBES

The Busan outcome document set out the principles underlying IPBES’ approach, including that it be:

- *Demand-driven* - responding to needs from governments (including through multilateral environment agreements)
- *Collaborative* with existing initiatives on BES (from MEAs, UN agencies, scientific community)
- *Scientifically independent*
- *Transparent*
- *Policy relevant, but not policy prescriptive*
- *Inclusive of a range of knowledges (e.g. ILK)*
- *Interdisciplinary* – being inclusive of all relevant disciplines across natural and social sciences

The evolution of the conceptual framework illustrates how the platform has attempted to evolve its thinking from a science-based framework to include a broader set of world views. The process of adoption of the conceptual framework was not smooth, needing two stages to gain complete acceptance, but it has proved a sound basis for the work of the platform thus far. Evolution of the conceptual framework is to be expected as the further work of IPBES feeds back to its design, in a process of continual improvement.

The Conceptual Framework finally adopted by the Plenary (Decision IPBES-2/4) in 2013 sets out the goal of the Platform 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” and (following the Busan outcome) four interconnected functions to achieve it, namely:

1. to catalyse the generation of new knowledge;
2. to produce assessments of existing knowledge;

Box 1: The IPBES conceptual framework

The rationale for developing a conceptual framework is set out in Decision IPBES-2/4: *“The conceptual framework [...] is a highly simplified model of the complex interactions between the natural world and human societies. The model identifies the main elements, together with their interactions, that are most relevant to the Platform’s goal and should therefore be the focus for assessments and knowledge generation to inform policy and the required capacity-building. [...] the conceptual framework is a tool for the achievement of a shared working understanding across different disciplines, knowledge systems and stakeholders that are expected to be active participants in the Platform.”* the conceptual framework has supported the analytical work of the Platform and guided its implementation and resulted in the development of the concept of nature’s Contributions to people (NCP).

The Conceptual Framework provides the basis by which all work activities within IPBES occur. Importantly, it explicitly recognises the following:

- that there are multiple worldviews of the Earth. IPBES recognises and considers different knowledge systems, including indigenous and local knowledge systems alongside science, as one world-view.
- a multiplicity of both direct and indirect drivers to biodiversity change and ecosystem services degradation. Indirect drivers are broadly defined as institutions and governance systems (ex: property and land access rights, legislations, social norms, macroeconomic and fiscal policies, agricultural policies, etc.).
- the multi-scalar dimension of the issue across time and space.

The conceptual framework attempted to capture multiple world views of the Earth System. A debate over the terminology and its use in the IPBES conceptual framework has developed in the academic literature, but there has been little plenary discussion or debate about the conceptual

3. to support policy formulation and implementation; and
4. to build capacities relevant to achieving its goal.

At the same plenary, the first work programme of IPBES for the period 2014-2018 was adopted. This included: (i) the establishment of taskforces on capacity-building, on indigenous and local knowledge (ILK), and on knowledge and data for the period considered; (ii) the undertaking of fast-track assessments on pollination and pollinators associated with food production, and on scenario analysis and modelling of BES⁶; and (iii) the development of a catalogue of policy support tools (with the support of an “expert group”) rather than a task force.

The subsequent years were dedicated to defining the institutional and financial arrangements of the Platform, and the rules of procedures of the Platform. From this inception process, it is important to note that IPBES *is not a UN body* but rather an *intergovernmental body* (UNEP/IPBES.MI/2/8). To develop and deepen the close links with UN, however, a Collaborative Partnership Agreement establishing an institutional link between the IPBES Plenary and UNEP, UNESCO, FAO and UNDP was approved in 2013 (Decision IPBES-2/8). Indeed, earlier those four agencies were seen as a potential joint secretariat for IPBES.

Finding 1. The creation of IPBES resulted from a protracted, complex and difficult process of discussion and international negotiation, which has helped to create a wide sense of ownership and provided a solid foundation from which the Platform can develop over time.

Established in 2012, the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services has been fully operational since 2014. That establishment followed almost a decade of discussions at international level, crystallising at a meeting in Busan, South Korea in 2010 held under the patronage of UNEP - the third ad hoc intergovernmental and multi-stakeholder meeting on an intergovernmental science-policy platform on biodiversity and ecosystem services. That meeting decided on the establishment of IPBES as an independent intergovernmental body, and brought together thinking on the need for greater capacity and knowledge generation on BES globally with increasing desire to see a repeat of the Millennium Ecosystem Assessment.

Finding 2: IPBES offers a strong value proposition for stakeholders that will last for at least the next decade - if its implementation progresses well. The latter can still be improved with respect to its policy support mandate and, to a lesser extent, with respect to its capacity-strengthening and knowledge-generation efforts (a significant part of its value for stakeholders).

There is agreement among a large majority of respondents to the online survey that IPBES is filling a gap that no-one else has been able to fill⁷, that it has largely avoided encroaching on others’ space⁸ and that

⁶ The assessment on scenarios and models and pollination were conducted as a fast-track assessments in the sense that its undertaking was approved based on an initial scoping report prepared by the MEP and Bureau. As an exception to the fast-track approach, however, a second order draft of the assessment was prepared and underwent review by Governments and experts (as it would have been done following a standard approach). So, except for the scoping part, the assessment followed the standard approach (two review periods), but within a two-year period (i.e. between IPBES 2 and IPBES 4).

⁷ 80% of survey respondents. However, among those who do not know IPBES well, this figure drops to 53%; the reasons for the difference in opinion is not known.

⁸ “unnecessary duplication” = only 20%

its niche will remain highly relevant in the next decade⁹. It is also succeeding in meeting its overall objective¹⁰ - advancing all four functions¹¹ albeit to a varying extent, with assessments the most and policy support the least successfully pursued.

3.2. Evolution of IPBES: the niche and value proposition

Finding 3: IPBES has unique features that constitute major strengths:

- It has a large membership and intergovernmental status
- It seeks to address four functions explicitly as part of its mandate
- It is inclusive of all sources of knowledge, and open to the participation of stakeholders
- It experiments in using different worldviews to inform its outputs

Since its inception, IPBES has significantly grown its membership base with 131 countries member of the Platform, and 67 observers as of December 2018¹². While about 2/3rd of all countries are members to the IPBES, in Asia-Pacific region the membership is just under 50%. In all other regions the membership is close to 3/4. It is worth noting that many of the countries not yet members or observers are Small Island Developing States which could benefit considerably from IPBES work. The intergovernmental nature of IPBES is seen by many of the stakeholders consulted during the review as a major strength overall: (i) it is an important source of legitimacy for the Platform, (ii) it creates a shared culture of the issues among countries (especially as many of the government representatives attending the Plenary also attend the CBD COP for instance and are engaged in other biodiversity-related processes) by providing a formal and regular setting for discussing the issue of biodiversity, (iii) and ownership of its products, especially through the negotiations of the Summary for Policy-Makers (SPMs).

In contrast to other science-policy mechanisms such as the IPCC, IPBES' original mandate was to advance four functions concurrently to achieve its goal. Together, these functions (assessment, knowledge generation, policy support, and capacity building) define IPBES' niche and are widely seen as still relevant today (over 80% of the total respondents to the survey). Over 70% of the respondents to the survey agree that IPBES is meeting its overall objective of strengthening the science policy interface for BES, and 50% of the total respondents agree that it has advanced its four functions.

IPBES is also seen as seeking to be experimental, particularly as regards to the inclusion of social sciences, other knowledge systems, and in the involvement of stakeholders. For instance, of alternative approach to scenarios with the willingness to use more creative approach to scenarios, work at multiple scales, and design them with stakeholders¹³.

Finding 4: There is a need for a more explicit and formal IPBES vision and mission that is linked to an overall strategic framework, which are prerequisites for a modern and forward-thinking organization.

⁹ 90%

¹⁰ 80%

¹¹ 62%

¹² <https://www.ipbes.net/members> consulted on 16 December 2018

¹³ Borie et al. 2015. Conference paper "Somewhere between everywhere and nowhere: the institutional epistemologies of IPBES. Also, Lundquist et al. 2017. Visions for nature and nature's contributions to people for the 21st century, NIWA Science and Technology Series Report No. 83, NIWA, New Zealand https://www.niwa.co.nz/files/IPBES-Nature-Futures-report_2017_ExecSum.pdf

The lack of a unified vision and mission results in different views and expectations among the various experts, members, partners and other stakeholders taking part in the Platform regarding what IPBES is, what it is trying to achieve and where it should focus.

While IPBES has an overall goal of strengthening the science-policy interface for biodiversity and ecosystem services, it lacks an overall vision, mission statement and set of strategic goals against which performance can be assessed. While the rules of procedure may spell out the functions of IPBES this is not the same as a properly developed vision, mission statement and strategic framework. By strategic framework we do not simply mean the Work Programme, but rather a framework for all of IPBES activities, linked to the vision and mission. Most of the MEAs have good examples. There is currently a “mission statement” on the IPBES website stating that: “Our mission is to strengthen knowledge foundations for better policy through science, for the conservation and sustainable use of biodiversity, long-term human well-being and sustainable development”. That mission statement offers a partial view and makes an interpretation that puts more emphasis on science and underplays the need for IPBES to actively manage the policy side of its mandate, and suggests a linear approach of the science-policy interface.

3.3. IPBES’ bridging challenges

Finding 5: IPBES is clearly perceived and accepted as an intergovernmental global science-policy interface for biodiversity and ecosystem services, with the interfacing role of IPBES seen as adding important value in a crowded institutional landscape. However, there are divergent views of what that interfacing role entails.

The interviews and survey conducted show that IPBES is clearly identified as an intergovernmental science-policy organization with the aim to generate technical evidence for decision-making. However, the science-policy interface role of IPBES is not perceived as fully effective by all and is certainly interpreted in different ways, including by individuals and organisations closely involved in the Platform’s work and governance. There is a wide range of perceptions and views about what a science-policy interface is, and the key work it entails.

The use of the term science-policy somewhat devalues IPBES that aims to bring a range of knowledge to the table. A first tension appears between a narrow use of the term science (limited to the academic world) and a broader meaning that encompass the range of knowledge brought by academic and non-academic actors.

Similarly, the word ‘policy’ in science policy interface could be misleading as it is often equated to politics and associated to the risk of political interference in establishing evidence to inform decision-makers. A commonly held view is that the nature of IPBES as an intergovernmental organisation creates the strength of the policy side of the science- policy interface without having to build it and actively manage it. This often goes alongside a tacit expectation that intrinsic quality of knowledge will have influence on policy and that government is the primary target for policy influence at the expense of other decision-makers in the economic world or civil society.

A systematic analysis of the science/policy interface literature shows that such interfaces are better described as a fuzzy and constantly evolving boundary revolving around several challenges (see box 2). As Cash and Clark put it, “[t]he boundary is contested, negotiated, and ultimately constructed by scientists and policy makers as they struggle to resolve the fundamental tensions of scientific assessment in the policy arena - maintaining scientific credibility (by not politicizing the research) while assuring practical saliency (by producing information that is relevant and useful to decision makers) and doing so in a manner that secures political legitimacy (by being seen as fair and open to multiple participants)”¹⁴.

This complex landscape of tensions and choices between credibility, relevance and legitimacy and coordination challenges (see box 2) shows clearly that a well-functioning science-policy interface necessarily involves more than policy makers identifying topics for assessment and scientists working without political interference until a report is ready to present to them. Responding to initial requests from governments and discussing outputs (SPM) is not enough to achieve policy relevance. Bringing different policy perspectives from multiples participants during the assessment process, as well as more accurately reflecting sectoral realities and linkages that are important to decision makers, are critical criteria for legitimacy and relevance. By design, IPBES set out to manage multiple interfaces within its governance and in its work: between sciences (natural, social sciences, economics, etc.), knowledge systems (indigenous and local knowledge, scientific knowledge, policy knowledge), scales (global, regional, sub-regional, national), and sectors (environment, economics, agriculture, development).

Box 2: Bridging challenges at the interface between science and policy

The Boundary Organization concept is a useful tool to unpack the different meanings and challenges associated with the idea of science policy interface and helps capture the multiple dimensions involved in supporting better use of scientific evidence in decision-making. More specifically, the Boundary Organization concept helps highlight the range of tensions at the interface of science and policy with:

- Some actors insist on the need to include knowledge arising from diverse (and often divergent) perspectives about the framing of problems and solutions: social and natural sciences; different scientific reasoning styles (probabilistic, scenario, analogy, genealogy...); scientific and practitioners’ knowledge; scientific and Indigenous Knowledge.
- Others insisting on the need to include a body of knowledge related to different policy areas/sectors (agriculture, development, culture, economic) and different policy cultures (academic, civic, bureaucratic, economic).
- Still others insisting on the importance of combining knowledge arising from and relevant at different scales (local, national, regional, global decision-makers).

¹⁴ Cash, Clark, 2001.

In the creation of the Platform, IPBES was also required to manage interfaces with other institutions, including environment or biodiversity related assessments that pre-existed (TEEB, Global Environment Outlook, Global Biodiversity Outlook, etc.) and policy (notably the biodiversity-relevant Multilateral Environmental Agreements).

Finding 6: IPBES has prioritized building its scientific and technical credibility over policy application and subsequent implementation in its first years. While that is both understandable and in some ways desirable, IPBES is operating largely as a science-based organization that has yet to fully engage with and effectively navigate the interface between data, science, policy and practice, and thereby bridge the gap between knowledge and policy. Such navigation requires time, resources and engagement from all members, partners and other stakeholders of the Platform to yield results. Finally, there is a tacit expectation that knowledge will have influence just by “being”. This is not a valid assumption.

The online survey shows that, on the science-policy interface IPBES has *shown strength* in¹⁵

- assessing and synthesizing available knowledge and information;
- developing consensus on the underlying causes and consequences of biodiversity loss and ecosystem degradation;
- advocating that the issue of biodiversity loss and ecosystem degradation be prioritized.

Respondents perceive it to have done *reasonably well* in

- harnessing new knowledge;
- strengthening capacities that can help build understanding and useful interactions between researchers and stakeholders.

It is seen to have been *least successful* in

- reviewing the effectiveness of existing policies and actions;
- developing consensus on the range of solutions to address the current situation; and
- advising governments on possible policy changes.

IPBES is therefore seen to have given primacy to science (knowledge) over policy in its initial work programme. While the work of IPBES has focussed on its scientific and knowledge assembly credibility, IPBES operates more as a scientific assessment body rather than a science-policy interface mechanism.

The policy side of IPBES is under-developed, even in instances where it is supposed to be the focus (e.g. SPM documents, policy support function). Many comments made in interviews (including with NFPs) and the survey point to the fact that the SPMs do not provide a sufficient range of policy options or guidance, which raises questions including on the policy framing of assessments in the scoping phase (in particular cross-scale and cross-sectoral considerations), the role of policy practitioners in the assessment process, the engagement of governments in the review of draft SPMs, and the approval process in Plenary. Lack of policy options also results from too strong adherence to avoiding being “policy prescriptive” which has made SPMs less useful overall.

Regarding improving the traction achieved through policy advice one contributor comments: “The IPCC example is not a good one – it is full of extensive jargon and beyond saying anthropogenic climate change is a big problem and the existential threat is now accepted by most politicians, the technical aspects of

¹⁵ More than 70% of those who know IPBES well agreed that it has done quite well or very well in these aspects.

making progress have been more complex and caught up in all sorts of domestic politics.” The more recent 1.5 degree report seems to have improved IPCC impact and can guide the IPBES approach into the future. Policy goals or targets may be explicit without being prescriptive about how to achieve it.

So far, IPBES seem to mainly focus its policy activity on global policy-makers (through the MEAs) and national policy-makers (as represented in the Plenary) at the expense of other decision makers or influencers (private sector, biodiversity managers, consumers, etc), with little effort made to include other actors. Similarly, experts’ involvement and members’ attendance mainly come from the environmental sector and other sectors have difficulty in joining current IPBES processes. It is noted that the issue of biodiversity mainstreaming is one with which the Convention on Biological Diversity (CBD) continues to grapple.

Finally, efforts to integrate global work into national and local scale policy and practice remains weak, but that is also a reflection of the scale of the assessments carried out thus far and the tension between the explicit focus of IPBES at global and regional levels while the decision-making levels on biodiversity management are mostly national and sub-national.

3.4. Positioning: the role of partnerships and other stakeholders

Finding 7: The issue of partnership is crucial for the positioning and acceptance of IPBES. The stakeholder mapping shows a very complex landscape of organizations and stakeholder groups that could be or are already interacting and collaborating with IPBES as partners. While IPBES has formalized a number of partnership agreements in the course of the first work programme, their effective implementation has been hampered by the single formal status of observers available to all non-members and non-State actors (partners or otherwise), which has prevented their full strategic engagement. In addition, the current IPBES stakeholder strategy has not enabled the degree of synergetic collaboration and engagement with the range of stakeholders envisaged at its establishment.

The issue of partnership is crucial for a good positioning and acceptance of IPBES, as well as effective coordination. A standard approach to stakeholder mapping (represented in concentric circles) would show the distance (i.e. the different levels of engagement and influence) of organisations to the Secretariat/MEP/Bureau at the center, in a linear way. The stakeholder mapping undertaken, however, shows a very complex landscape of organizations and stakeholder groups that could or are already interacting with IPBES.

So far, IPBES identifies three types of partners (IPBES/6/INF/21):

1. The core UN family partners covering:
 - The four UN organisations/programmes (UNEP, UNESCO, FAO and UNDP) with which the Platform has a Collaborative Partnership Agreement from inception. The scope of the agreement includes: coordination of activities and implementation support to IPBES, secondments and additional capacity to the IPBES secretariat, joint fundraising, communications support, information sharing, invitation of the Partners to participate in meetings of the Plenary and subsidiary bodies and acknowledgments of the Partners in IPBES documentation and communication materials (Decision IPBES-2/8). Many IPBES participants appear uncertain about the role of the 4-UN partners as part of the overall process.
 - The Multilateral Environment Agreements (MEAs) related to biodiversity and ecosystem services with which the IPBES Secretariat has signed a Memorandum of Cooperation: CBD, the Convention on the Conservation of Migratory Species of Wild Animals (CMS), the Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES), the Convention on Wetlands of International Importance (Ramsar, Iran, 1971) (Ramsar), and the Convention to Combat Desertification (UNCCD)- in progress at time of writing. There are other MEAs in this cluster (recognised as the Biodiversity Liaison Group) with which IPBES will invariably interact in coming years.
2. “Strategic partners” including:
 - Organisations with which the IPBES secretariat has signed a Memorandum of Understanding for the first work programme: The International Union for Conservation of Nature (IUCN), Future Earth, United Nations University Institute of Advanced Studies (UNU-IAS), the Global Biodiversity Information Facility (GBIF), and the Inter-American Institute for Global Change Research (IAI).
 - IPCC which has observer status in IPBES and has recently been invited to attend MEP meetings (likewise for IPBES in IPCC).
3. *Ad-hoc* partnerships on specific aspects of the work programme (for instance the West African Biodiversity and Ecosystem Services - WABES)

While efforts have been made by the Secretariat and the Capacity Building Taskforce to develop a coherent approach to partnership, and several partnerships have been formalised in the start-up phase of IPBES, their implementation has been hampered by several factors:

- IPBES as a recently-created organisation is seeking to consolidate its role in the landscape of international biodiversity organisations and demonstrate its independence and legitimacy *vis-à-vis* organizations that have a much longer lifespan.
- Every organisation engaging in IPBES that is not formally a government member is considered an observer. The single observer status category has been a barrier for some partners to engage more strategically in IPBES.
- The breadth of IPBES’ mandate creates both an opportunity to influence multiple areas/organizations, but in turn that breadth is also a weakness, giving a lack of focus for partners and IPBES alike to grapple with. This is linked to the lack of strategic vision for the

Platform overall which does not allow for strategic and differentiated engagement with partners.

- IPBES lacks the time and resources in its secretariat to ensure continuous liaison with the whole range of potential and existing partners. Yet potentially valuable offers made to collaborate with IPBES are said to have been declined for administrative reasons (e.g. the GEF).
- Some respondents commented that certain collaborations appear to be more acceptable than others, leading to perceptions of lack of transparency and recognition in IPBES, and arise, in part, as a result of the perception that IPBES is a UN body.

Potentially problematic is the insufficient collaboration with both the public and private sectors to operationalize the work of IPBES - especially at regional, national and local scales. There are multiple factors that explain this, some going beyond IPBES's sphere of control. They include the need for governments to promote more and wider engagement in the Platform, the need to identify mechanisms to bridge across sectors (and the reach and sectoral expertise of the UN-4 [UNESCO, UNEP, UNDP and FAO] need to be better utilised in this regard), the need to make the case for why BES matter and elevate the issue of BES on the political and media agenda, and point to the need for a more intentional and nuanced strategy of IPBES for stakeholder engagement that allows for differentiation.

The survey and interviews have also uncovered gaps which include:

- Consideration of the need to include partnership with strategic partners from the broad research community to work outside of the assessment scope (e.g. for addressing gaps identified in the assessments).
- The need for a clear view on the role of the private sector as a stakeholder and not simply a funder.
- Countries not platform members are often not aware of the full potential available to them.

Finding 8: Despite much activity early on in shepherding the process of the Platform's formation, even at one stage by proposing to jointly provide the secretariat, the potential value of the four United Nations organizations (FAO, UNDP, UNEP and UNESCO) is significantly under-utilized, or even poorly understood, by all parties.

The bibliometric study has shown that only UNEP and FAO have referred to IPBES in their intergovernmental process documents while UNESCO, and to a lesser extent, FAO and UNDP cite IPBES in their institutional and research documents¹⁶. So far, each of the UN-4 are involved to a different degree in the partnership. Only UNEP and to a lesser extent UNESCO have provided in kind contributions to IPBES. Inputs are provided on an *ad hoc* basis by contrast to something strategically coordinated through more formal mechanisms. The sentiment is that the UN-4 are engaging more as stakeholders (their official standing is as observers) rather than strategic partners. Some point to

¹⁶ Institutional and research documents are research and communication documents officially published by the institution. Intergovernmental process documents are official documents associated with intergovernmental meetings within the framework of the institution. For more details, see Bibliometric study annexed to this report.

“missed opportunities” in terms of expertise mobilisation in IPBES activities, wider dissemination of IPBES products or joint programming to maximise synergies for instance. However, there may be good reasons for that: the distance also has benefits in terms of independence (clearly valued by both member states and stakeholders), and the UN bureaucracy is identified as a hindrance for operations. Yet, the association with the UN-4 partners is an important source of legitimacy for IPBES in order to reach out to various sectors and stakeholder groups (see use of logos on communication materials).

Finding 9: While interactions with the secretariat of and the Conference of the Parties to the Convention on Biological Diversity have been positive and mutually supportive, there is room for stronger collaboration and alignment between IPBES and the other biodiversity-related MEAs at both formal (Conference of the Parties) and informal (secretariat) levels.

Except for the Convention on Biological Diversity (CBD) where there have been several decisions relating to IPBES products and performance at both CBD COP13 and 14, overall collaboration with the biodiversity-relevant MEAs remains weak. Some mechanisms for communication exist. For example, IPBES has been invited on a regular basis to present to the Biodiversity Liaison Group¹⁷ with the latest meeting taking place in September 2018. There are regular interactions with the chairs of the scientific bodies of biodiversity-related conventions, who attend meetings of the MEP. Several MEAs have submitted requests for the next work programme¹⁸.

However, collaboration is made particularly challenging as both IPBES and the MEAs have their own intergovernmental process to manage and operate on different timeframes. The MEAs are both users - through their Conference of the Parties - and producers of knowledge - through their scientific subsidiary bodies and other mechanisms (e.g. State of the World’s Wetlands, Global Land Outlook). A specific example is the Land Degradation Assessment where UNCCD (potentially a major international end-user of the assessment) was already progressing a similar exercise, and created its own science policy interface.

Box 3: 14th Conference of the Parties of the Convention on Biological Diversity

The CBD COP 14 held in Egypt in November 2018 offered the following suggestions:

- notes IPBES work is expected to be relevant to the CBD 2030 Agenda and the Paris Agreement;
- welcomes the efforts of IPBES to further enhance its cooperation with the IPCC; and
- agrees that elements of IPBES work should be relevant to the CBD post-2020 framework, help support its implementation, assess progress, and allow for ongoing exchange of information and requests from the Convention.

The COP further invites IPBES to:

- take into account the need for a gender equality and women’s empowerment perspective;
- take into account the knowledge and data gaps identified in the first work programme;
- assess the behavioural, social, economic, institutional, technical, and technological determinants of transformational change, and how these may be used to achieve the 2050 vision; and
- develop a multidisciplinary approach to understand the interactions of the direct and indirect drivers of biodiversity loss.”

¹⁷ Liaison Group of Biodiversity-related Conventions - In order to enhance coherence and cooperation in implementation, a liaison group has been established between the heads of the secretariats of the seven biodiversity-related conventions. The Liaison Group of Biodiversity-related Conventions meets regularly to explore opportunities for synergistic activities and increased coordination, and to exchange information. From CBD website (consulted on 14 January 2019)

¹⁸ <https://www.ipbes.net/requests-received-ipbes-work-programme> (consulted on 14 January 2019)

The effectiveness of IPBES process in terms of engagement with conventions requires better alignment, which discussions with MEA secretariats and Science Chairs suggest is proving difficult to achieve, largely due to the lack of formal or semi-formal mechanisms to facilitate such engagement. This is not simply an IPBES problem: the need for better, regular channels of communication are mentioned from both sides.

Cooperation with the CBD is well-established and value is seen on both sides. A large majority¹⁹ of respondents to the online survey consider the complementarity between IPBES and the CBD to be good to excellent. The bibliometric analysis confirms that CBD stands out among MEAs in its uptake of IPBES as IPBES is mentioned in all COP reports since 2012 and there is a high and steady rate in CBD working documents citing IPBES. The Platform has overall been responsive to requests made by CBD (e.g. pollination was identified as a priority by the Convention) and the Convention has supported the uptake of IPBES assessments e.g. policy recommendations on pollination and pollinators adopted at COP13). Other evidence of direct linkage includes the use of the IPBES scenario and models' assessments by SBSTTA or procedures in place for CBD to provide inputs into the IPBES proposed new work programme.

3.5. Stakeholder engagement

Finding 10: IPBES identified early on the importance of stakeholder engagement in its work and should be commended for that. At the same time, early implementation has been tentative.

At the outset, IPBES should be commended for being one of the first international expert organisations to formally develop a stakeholder engagement strategy and process as a key part of its mandate²⁰. The IPBES stakeholder strategy was determined at IPBES 2014 (Decision IPBES-3/4). There is a practice of holding stakeholder consultations ahead of Plenary meetings (stakeholder days are also live-webcast), stakeholders account for 1/4 of the participants in plenary on average²¹, stakeholders participate remotely in the review of draft assessment reports and are able to provide inputs in terms of nominations of experts for deliverables and for the identification of priority issues to be considered in the work programme, albeit at a reduced percentage rate. Indeed, the rules of procedure for the preparation of IPBES deliverables stipulates that “experts selected from those presented by relevant stakeholders should not exceed twenty per cent” (IPBES/3/18), the remaining 80% being experts nominated by governments. In most assessments' participation of stakeholders (outside of business interests) has occurred and has been welcome, allowing to draw on a wider pool of expertise, including from the broad scientific community. IPBES also has memoranda of understanding with a number of intergovernmental and NGO stakeholders.

However, it is worth noting that there are no clearly defined stakeholder categories - and the time allocated for stakeholder consultations in advance of the plenary has diminished in time and interactivity, to less than one day for IPBES 6. Further, instead of emphasizing the diversity of opinions that multiple stakeholders may bring to the process, it appears the focus has been on creating consensus positions, which do not necessarily represent the diversity of perspectives. The

¹⁹ 75-92%

²⁰ https://www.mitpressjournals.org/doi/pdf/10.1162/GLEP_a_00390

²¹ Based on data available. Participant categories considered are observers and non-governmental considered. Other participants registered under governments, UN bodies, conventions, IGO, IPBES experts and subsidiary bodies.

extent to which the stakeholders involved in IPBES truly represent policy or management interests is unknown.

The self-organizing concept has become somewhat confused for the stakeholder days, with a key stakeholder noting that the fusion of communications and stakeholder functions in the Secretariat seemed to be a backwards step: while stakeholders have shown to be important allies in supporting IPBES' work and outreach, there are also expectations of participation in IPBES to contribute substantially and voice their own needs. The organisation of the stakeholder days is overseen by a project team led by the IPBES Secretariat. This team includes 2 representatives from each of the IPBES stakeholder networks (as of today, ONET and IIFBES), as well as a representative of the hosting country. Guidelines were prepared for stakeholder day organisation in 2017. According to the guidelines, the stakeholders should prepare a report after each stakeholder day event to be published on IPBES website. This was done in 2017. The document appears with an IPBES logo and was compiled by WWF and IUCN. There does not appear to be such a report for 2018, except a non-working link to the webinar as of January 2019.

Stakeholder engagement also happens at national level where, in some countries, national platforms or working groups on IPBES have been established. In other countries, this work is undertaken by NFPs. This helps broadening the actors involved in IPBES, and raise awareness and understanding of what the Platform does and how it operates. However, some stakeholders operate globally (i.e. beyond one single national jurisdiction) and as such rely on the mechanisms for participation available globally (e.g. the stakeholder days prior to Plenary meeting).

For numerous reasons there is still a perception among stakeholders that IPBES is a UN organization. This type of comment from the online survey – “bureaucracy linked to the UN status” is instructive. These perceptions need to be actively countered and are not aided by the placement of the Secretariat within UNEP and the subsequent branding of Secretariat outputs that are UN partner dominated. Some attention needs to be paid to the IPBES branding strategy where IPBES itself should more aggressively clear up these misperceptions.

3.6. Recommendations

Recommendation 1: A formal vision and mission should be discussed and agreed by the Plenary.

The vision and mission should serve to reaffirm the niche of IPBES, which many perceive to be that of an interface mechanism providing authoritative knowledge for policy development and decision-making and delivering through its four functions, which are seen as an integrated set. **This vision and mission of IPBES should be supported by a short and well-focused strategic plan that embraces all activities of the Platform, against which future development and performance can be evaluated.** Such document would bring together work plans, resource mobilisation, partnerships, stakeholder engagement, communications and some metrics of success which are currently developed in relative isolation from one another.

Recommendation 2: The Plenary should, in the context of the next work programme, clarify the various boundaries that IPBES is trying to span as a science policy interface, along with the

requirements and the vision for success in that regard, in order to prioritize and align resources and partnerships and to identify relevant types of outputs.

Recommendation 3: A clear strategy should be developed for enhanced and more synergetic collaboration and engagement with key strategic stakeholders as strategic partners, allowing for differentiation of status (beyond observer status) to enhance mutual benefits.

The default observer status category available to all non-state actors in IPBES results in partners and stakeholders being lumped together. There is a need to differentiate (develop categories of partners and stakeholders) for more efficient and more effective engagement, especially of the strategic ones. In particular:

- a. The current agreement between the IPBES Secretariat and UNEP, UNDP, FAO and UNESCO as the primary strategic partners should be reviewed for better strategizing and clarifying mutual expectations, clearly articulating not only institutional and operational support but also intellectual/expertise support and strategic directions, as well as potential for dissemination and implementation of IPBES products.
- b. Better collaboration and alignment with all biodiversity-relevant MEAs could be enhanced e.g. through IPBES becoming a full member of the Biodiversity Liaison Group (BLG), the Joint Liaison Group of the Rio Conventions (JLG) and a rejuvenated Chairs of Science Advisory Bodies (CSAB). Expectations from these partnerships should be articulated formally.
- c. Strengthen partnerships with relevant stakeholder organisations with a focus on biodiversity information management such as GBIF, GEOBON and IUCN.
- d. Consideration should be given to a more formal collaboration with *i.a.* Indigenous Peoples and Local Communities (IPLCs) in the framework of the Participatory Mechanism.

Recommendation 4: The stakeholder engagement processes within IPBES needs to be reviewed and strengthened to better deliver for the Platform and the stakeholders. In particular, stakeholder engagement should occur throughout the assessment process to implement the true co-production of assessments. This will critically rely on appropriate nominations by the Platform members, partners and other stakeholders, in particular of practitioners, biodiversity managers, policymakers and policy experts, and rely on the capacity to generate mutual benefits and to communicate and coordinate at different scales (interest, capacities and coordination should be developed at the national scale, then be leveraged by IPBES at regional and global scales).

Meaningful engagement of stakeholders is a challenge for many intergovernmental bodies, yet a strategic and targeted approach is essential for maintaining IPBES's legitimacy and relevance, especially as it seeks to broaden its thematic scope to address human development and well-being issues, and strengthen its policy relevance.

- IPBES should continue to work at improving stakeholder democracy around the IPBES platform through increased transparency by promoting social representativeness²² and especially by promoting increased regional assessment participation.
- More collaboration with national governments, relevant biodiversity-related MEAs, UN agencies, relevant international initiatives such as IUCN, GBIF and GEOBON, and universities will be helpful, but the extent to which this can happen will clearly depend on resource availability and allocation.
- Responses in interviews suggest the merger of stakeholder engagement and communications is not the most effective approach, and the Plenary should revisit this idea, focusing on capacity in the secretariat to deliver quality stakeholder engagement separately from the complicated exercise involved in communications about the platform and its products.

²² https://www.mitpressjournals.org/doi/pdf/10.1162/GLEP_a_00390

4. GOVERNANCE, STRUCTURE AND PROCEDURES

Overall, the current governance of IPBES is viewed positively with a large set of procedures that have enabled the delivery of the first work programme. However, questions remain over the legal status of the Platform. The governance structures are also seen as cumbersome. While the operating principles are clearly identified, their implementation across IPBES work is uneven, and the platform overall lacks an information management strategy. An information management strategy will become increasingly important as the platform ages and continues to generate a wealth of information, requiring curation and management.

4.1. IPBES legal status

Finding 11: There is confusion regarding the legal status of IPBES among IPBES stakeholders and even national focal points. IPBES is often perceived as a United Nations body rather than an intergovernmental platform. While the IPBES secretariat is hosted and administered by UNEP, the Platform is an independent body with its own governance structure.

The review has highlighted that most stakeholders are unclear over the precise legal status of IPBES i.e. whether IPBES is a UN body or an independent intergovernmental organization or initiative. The review team is advised by the Executive Secretary that “IPBES is not part of UNEP, but an independent entity. IPBES is an inter-governmental platform with no legal personality. The Plenary of IPBES is the decision-making body of IPBES that takes all decisions for IPBES, for example, the rules of procedure for its sessions; its financial rules and budget; its work programme and provides guidance on the implementation of the work programme, e.g. by adopting the procedures for the preparation of IPBES deliverables. The secretariat of IPBES is provided by UNEP. UNEP is an organization with legal personality, i.e. it can employ staff, purchase equipment, enter into a host country agreement etc. As per decision IPBES-1/4, paragraph 3, the secretariat is solely accountable to the IPBES Plenary on policy and programmatic matters.”

Without legal mandate, IPBES has no independent legal status but *is* legally considered a part of UNEP, its hosting agency, which assumes legal liability for the IPBES secretariat and the conduct of its business. This is underscored by the presence at all meetings of MEP, Bureau and Plenary of a UNEP Legal Officer. It is important for this to be more clearly and consistently communicated going forward (for example on the website) than has been the case to date.

4.2. Operating principles

The operating principles of the Platform are defined in UNEP/IPBES.MI/1/8, alongside the functions of the Platform. They cover the following dimensions: (i) collaboration with existing initiatives to avoid duplication, (ii) scientific independence through peer-review of the Platform’s work and transparency in decision-making, (iii) scientific credibility for the sharing and use of information from all relevant sources, (iv) recognition of the contribution of ILK to biodiversity conservation, (v) provide policy relevant information but not policy prescriptive advice, (vi) integration of capacity building in all aspects of the work, (vii) balanced regional representation in its structure and work, and (viii) interdisciplinary and multidisciplinary approach, (ix) inclusion of gender equity in all

relevant aspects of its work, (x) address terrestrial, marine and inland water biodiversity and ecosystem services and their interactions, (xi) ensure the full use of national, sub-regional and regional assessments and knowledge, through a bottom-up approach.

4.2.1. Policy relevance

Finding 12: The founding principle of being policy relevant but not policy prescriptive has been implemented primarily through a set of procedures (e.g. calls for requests and inputs, review and negotiation of summaries for policymakers) rather than through strategically framing the work and outputs of IPBES and enabling the engagement of the policy and practitioner side throughout the process. Although other sources of knowledge have been incorporated into IPBES products to varying extents, it is science that has received the pre-eminent treatment and focus. This is likely, at least in part, the result of the mandate and principles by which it operates - specifically, by trying to walk the fine line between being relevant to policy and effective in communicating its key messages, while not being overly prescriptive in the policy and implementation choices offered.

IPBES identifies policy relevance as a core principle for the implementation of its work. This links to its mandate to develop a science-policy interface by addressing knowledge needs from governments, and its policy support function by providing knowledge, tools and methodologies to policy-makers while remaining independent from political oversight. The way the policy relevant but not policy prescriptive principle is used in practice results in an overly cautious approach to advice and guidance for policy makers/decision takers that does not assist effective policy formulation or implementation.

A critical question for IPBES is “To what extent are we responding to needs from governments and how do our deliverables affect policy?”. This is not one that can be fully addressed in this Review given that the first outputs of IPBES were only recently released. Procedures are in place for soliciting inputs from governments and observers, for nominations of experts for assessments, etc.: the process happens to a significant degree but at certain isolated points in the assessment process i.e. mostly upstream (requests for priority issues, decision in plenary to carry an assessment, through nominations of experts), and then in approving SPM which countries are then expected to fully own and disseminate, with little engagement from scientists. There are insufficient interactions in the scoping and assessment phase with policy-makers and policy practitioners in the standard practice of IPBES so far: the assessments are not co-designed and co-produced with the potential users. It is worth noting however that this has begun to be addressed with a meeting organised in 2018 for the NFPs to meet with the global assessment co-chairs and some of the Coordinating Lead Authors prior to the government review of the second-order draft – a first effort that deserves continuation. As with many aspects of IPBES there are key roles for all actors in this process, not least of which are the NFPs.

4.2.2. Geographical and gender balance

Finding 13: For participation in all bodies of the platform, the principle of geographical balance among the five United Nations regions as well as overall gender balance has often resulted in slates of nominations that are balanced geographically and, to some extent, in terms of gender, but are not well-rounded in terms of disciplines and relevant skills. In the longer term, this risks undermining the credibility of IPBES.

Box 4: Regional and gender distribution of experts involved in IPBES

The overall distribution of experts across assessments, expert groups and taskforces¹ by regions is: African States, 15 %; Asia-Pacific States, 20 %; Latin American and Caribbean States, 17 %; Eastern European States, 10 %; and Western European and other States, 36 %.

37% of selected experts overall are women; however, female representation varies widely across the different expert groups from 26% to 78%. The Gender ratio varies also by region significantly: from 26% in Asia-Pacific States and 28% in African States to 39% in Eastern European States, 41% in Latin American and Caribbean States, and 43% in Western European and other States. This is reflected in the overall nominations by governments that only include 22% female candidates. However, it is worth noting that the gender dimension has been well incorporated in the assessments themselves.

Bodies, task forces, working groups	Africa, %	Asia-Pacific, %	Eastern Europe, %	Latin America & Caribbean, %	Western Europe & other, %	Gender, women, %
Bureau	20	20	20	20	20	20
MEP	20	20	20	20	20	32
Secretariat	?	?	?	?	?	60
TSUs	?	?	?	?	?	63
Capacity Building	18	15	15	26	26	41
ILK	21	21	12	21	25	46
Knowledge and data	14	43	11	11	21	39
Africa assessment	81	0	0	0	19	36
Americas assessment	0	0	1	64	35	45
Asia-Pacific assessment	0	81	0	0	19	35
Europe & Central Asia assessment	1	3	23	0	73	40
Regional assessments scoping	14	20	17	18	31	38
Global assessment	13	18	13	20	36	38
Pollination assessment	14	15	5	22	44	36

For participation in all bodies of the platform, the principle of geographical balance among the five

United Nations regions, based on criteria of discipline, region and gender, has been difficult to achieve (see Table above). This issue is well acknowledged within all who participate in IPBES and can have a result that achieves gender and regional balance with an imbalance of required expertise. This is a difficult issue faced by many international organisations with numerous factors involved including capacity gaps, and different nominating cultures.

It will be important for selection processes to take account of the political reality of differences across countries and disciplines, while ensuring maximum merit-based appointment to MEP and other sub-pleinary bodies, and especially in assessment teams.

Inputs made to the review panel suggest that it is not so much a focus on achieving quantitative balance, i.e. ‘balance by numbers’, but rather how to enable a more equitable and transparent nominations process. Rather than seeking further numeric gender/regional ‘balance’, IPBES may in fact be receiving a reasonable balance in nominations when tested against the available pools of potential candidates but a more proactive approach is advocated.

The focus needs to be on improving the understanding of why sufficient nominations are not being submitted to ensure adequate ‘balance’ e.g. are the ToRs clear enough regarding the commitments if nominations are accepted; the kind of expertise needed; the distribution mechanisms and timing of nomination and input requests; knowledge of IPBES and its intent; language of requests; timelines for responses (holidays in the northern vs southern hemisphere, etc.); and how those making/coordinating nominations and inputs can follow-up on submissions in order to understand why nominations are accepted or rejected i.e. greater transparency in the full process.

4.2.3. Balance across scientific disciplines and knowledge domains

Finding 14: IPBES still appears to have difficulty in engaging expertise beyond experts in the fields of biodiversity and ecosystem services. There are well-identified gaps in expertise, notably in the social sciences, that can potentially compromise its capacity to meet its overall mandate and influence policy.

Regarding the balance across disciplines and fields of expertise, there are well-identified gaps (also identified in the internal review) confirmed through the survey and interviews: IPBES is perceived to be interacting primarily with BES scientists. Indeed, one respondent comments that “many government environmental departments are well connected to typical biodiversity scientists. Consequently, expert teams tend to contain many systematists and taxonomists and it can be hard to get experts in ILK, social science, biodiversity policy, and so on”. This leads to bottlenecks in (most) countries where such positions are already overcommitted. IPBES also has gaps in expertise (e.g. agriculture, urban issues, the marine environment, as well as in social sciences, and economics and policy more broadly) that may be addressed through strengthened partnerships.

The role of the social sciences (including economics) and humanities is of paramount importance in the work of the IPBES, along with the natural sciences and technology. Three high priority areas of work where social scientists have already made a major intellectual contribution are²³:

²³ Alice B.M. Vadrot, Mariam Akhtar-Schuster & Robert T. Watson (2018) The social sciences and the humanities in the intergovernmental science-policy platform on biodiversity and ecosystem services

- (1) the *conceptual framework*, which acknowledges diverse world views, and models the interactions between people and nature, and nature's contributions to people;
- (2) the *diverse conceptualization of values*, which recognizes that values placed on nature and nature's contributions to people vary with cultural, political and institutional context; and
- (3) an evolution of the concept of ecosystem services (provisioning, regulation and cultural) promoted by the Millennium Ecosystem Assessment (MA), to *the concept of nature's contributions to people (NCP)*, (regulating, material and nonmaterial), which embraces a more inclusive and diverse interpretation of human-nature interactions, reflecting the greater involvement of the social sciences, humanities and other knowledge systems, including indigenous and local knowledge, in the science-policy interface. One significant advance in thinking is the recognition that culture is all pervasive and influences all NCPs, e.g. food production is both a material and non-material NCP and is no longer a separate category as was the case in the MA.

While these advances are welcome and show the value of IPBES, some have cautioned that such work should not “run ahead” of IPBES processes, especially in the translation of IPBES products across the science-policy interface.

4.3. Rules of procedures

Finding 15: In this initial implementation phase of IPBES, significant efforts have been made to elaborate, refine and adopt a set of rules of procedure governing all aspects of IPBES work. But it is worth noting that they are difficult to access as they are distributed across a range of decisions, and other information resources on the IPBES website.

The Rules of Procedure (RoP) detail the overall *modus operandi* of the IPBES at all levels, *i.e.* as a platform, and all its subsidiary bodies and their functions. Given the evolving nature of IPBES' establishment, coherence among rules and procedures is hard to follow. For developing procedures, IPBES drew extensively on the IPCC, especially for the assessments, and from the Millennium Ecosystem Assessment, and the International Assessment of Agricultural Knowledge, Science and Technology for Development. For other functions, IPBES had to develop procedures *ab initio*.

There appears to be no *single* document consolidating the current principles and procedures by which IPBES is operating which have been developed and refined through successive decisions. For example, the rules of procedure for the Plenary of the Platform were adopted in decision IPBES-1/1 and amended by decision IPBES-2/1. The financial procedures were adopted in decision IPBES-2/7 and amended by decision IPBES-3/2. The procedures for the preparation of the Platform's deliverables were first adopted in decision IPBES-2/3, and a revised version, which supersedes the earlier, was adopted in decision IPBES-3/3. The conflict of interest policy and implementation procedures were adopted in decision IPBES-3/3. Finally, regarding UNEP, decision IPBES-1/4, invited UNEP to provide administrative arrangements for the IPBES secretariat in accordance with the rules of UNEP; and welcomed the offer by UNEP for the secondment of a professional officer to the IPBES

(IPBES), Innovation: The European Journal of Social Science Research, 31:sup1, S1-S9, DOI: 10.1080/13511610.2018.1424622

secretariat. Paragraph 1 of decision IPBES-2/7 requests UNEP to establish a trust fund for IPBES as set out in option 2B in paragraph 19b of document IPBES/2/6.

The IPBES website²⁴ has all the various documents, but only in English, and not in a readily accessible form for those new to the Platform or unfamiliar with its extended establishment phase. Following and comprehending these threads is a real challenge for many people involved in IPBES, from governments, scientists and stakeholders alike.

4.4. Governance structure

The IPBES governance structure has several components. The Plenary is the Platform's decision-making body, comprising all members of the Platform. The Plenary has two subsidiary bodies, the Bureau that oversees the administrative functions, and the Multidisciplinary Expert Panel (MEP) that carries out the scientific and technical functions. The Bureau is elected from among the members of the Platform, with two representatives from each UN region. Members of and observers to the Platform may propose candidates for the MEP for election by the Plenary. The secretariat, including the technical support units (TSUs), provides administrative and technical support to the various bodies of the Platform and for the implementation of the work programme.

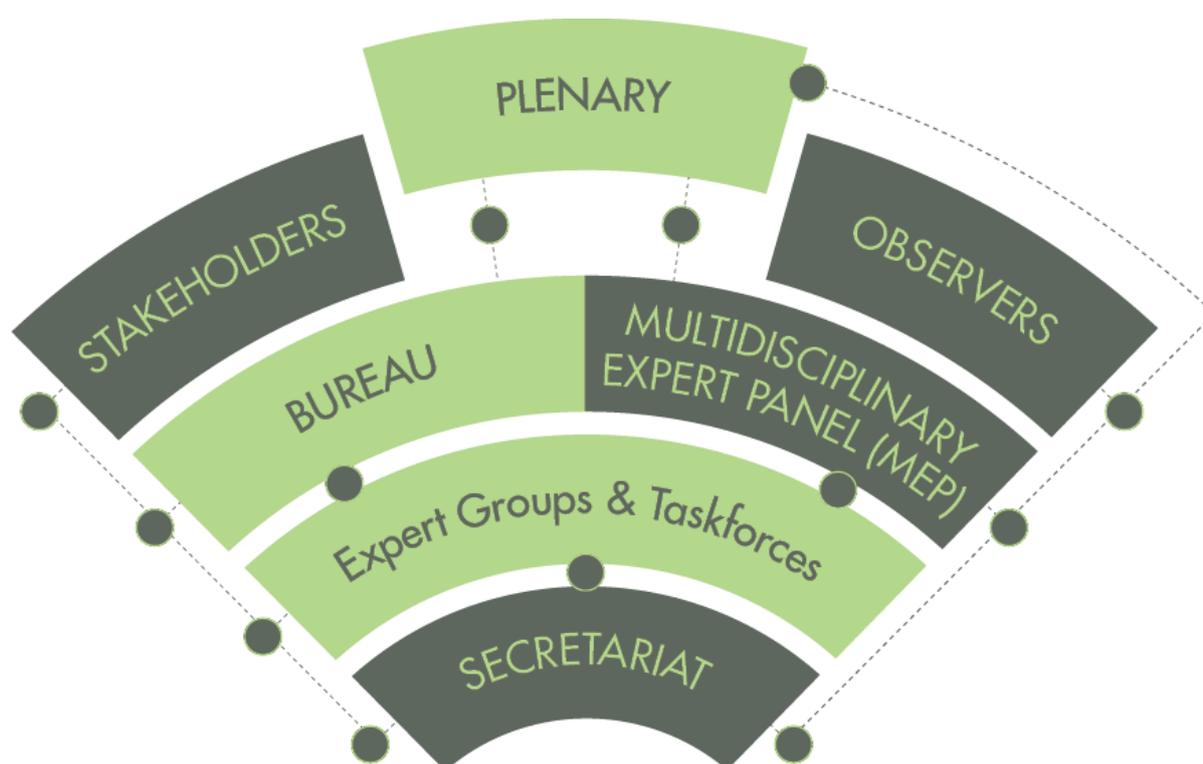


Figure 2: Structure of IPBES from the IPBES website

²⁴ <https://www.ipbes.net/document-library-categories/policies-and-procedures>

Finding 16: IPBES governance structure appears to some participants to be over-engineered, with an overlap in the duties of the MEP and Bureau, often leading to a duplication of effort and an unclear segregation of duties, which runs contrary to the principles of good governance.

A variety of feedback regarding the effectiveness and efficiencies of the governance structure suggests that this is a grey area for many stakeholders which requires further consideration and clarification. Primary concerns reflect the 'over-engineering' of the IPBES governance architecture, in the form of two subsidiary bodies, their respective roles and scope of authority and intervention and the large size of the MEP and Bureau combined. Having 35 representatives managing the administration and science portfolios is deemed excessive, given the resultant cost of the bi-annual meetings and other related governance activities.

Finding 17: Ensuring scientific independence - a fundamental rationale for setting up two subsidiary bodies - has been perceived not to work in practice. Such a perception is counterproductive for an organization with a goal to strengthen the interface between science and policy. The principle of scientific independence and the appropriate segregation of duties - which remain of critical importance to ensure the legitimacy and credibility of IPBES - should be strengthened through revised modalities.

The creation of two distinct subsidiary bodies of the plenary, namely the MEP and Bureau, was motivated by the need to ensure that the scientific function on one hand, and the administrative and political functions on the other hand were dealt with separately. The members of the MEP are selected based on their expertise and scientific credentials and act in an individual capacity (Decision IPBES-2/1) while the members of the Bureau are appointed to represent their region. In practice, MEP and Bureau conduct most of their business jointly, a situation viewed positively to foster synergies. In effect, despite their apparently different nature and purpose, both MEP and Bureau are comprised largely of trained scientists, with a salting of policy makers.

However, there is some concern or perceptions the panel found through interview and discussion that IPBES assessments are lacking full scientific independence, given the overlapping responsibilities between assessment teams, the Bureau and MEP to produce the SPMs. The Panel received some perspectives regarding the potential for interference in the science process. The panel were not provided with irrefutable evidence of this, but the Bureau and Plenary should be cognizant of this perception notwithstanding that there are other views valuing the guidance provided by Bureau/MEP members in managing the complex tasks involved. And this certainly helps ensure consistency of practice across concurrent assessments. As spelled out in the principles of IPBES, the scientific assessment process and its outputs must occur without unnecessary involvement from the MEP and Bureau.

4.5. Secretariat and Technical Support Units

Finding 18: The performance of the IPBES secretariat, the competence of its staff, and its strong commitment to the mission of IPBES is widely commended. The work of the secretariat is perceived to be a strength of IPBES, and the technical support units (as part of the secretariat) are

also perceived positively. However, the chronic work overload of the secretariat, and the lack of visibility and recognition of the work of the technical support units, are issues of concern.

The majority of all stakeholder groups that responded to the survey were consistent in their positive assessment of the Secretariat;²⁵ as well as with respect to the TSUs, although slightly less so²⁶. This is understandable given that the TSU situation is more varied. The review panel met twice with the Secretariat located in Bonn and once with the TSUs in the margins of the MEP and Bureau meetings.

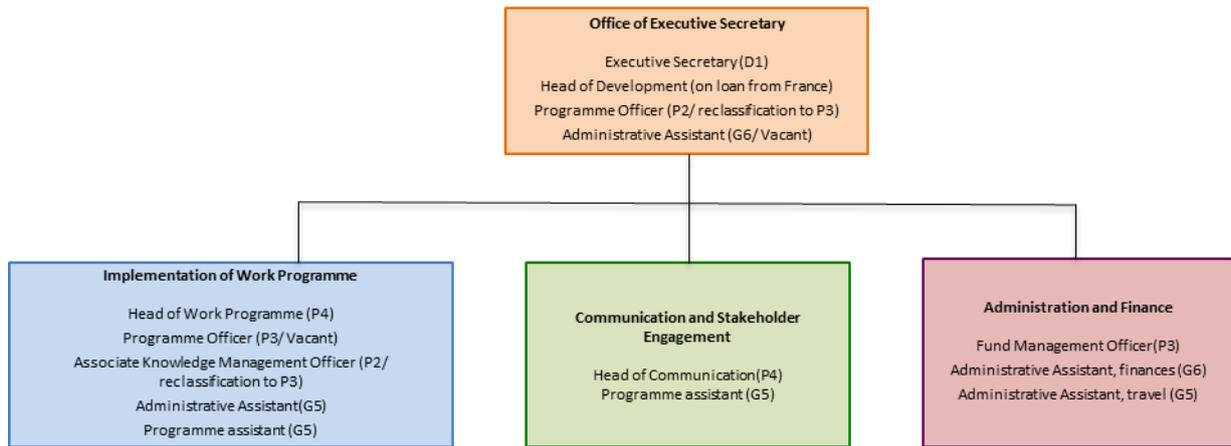
Overarching messages from the exchange with the Secretariat include: the value of being part of something meaningful and important, the aspiration to be the go-to organization for policy support on biodiversity issues, the need to put more emphasis on the components of the work programme other than assessments (the breadth of activities is valued), to be a continuously learning organisation that is self-reflective, and engage more broadly with partners and stakeholder groups. Overall, the current chronic overload of the Secretariat staff (including TSUs) is not sustainable. This overload originates in over-commitment by Plenary to a work programme not commensurate with the available budget, and subsequently staff capacity to carry out the work programme.

Most TSUs value the opportunity to be part of IPBES, a “place for personal and professional growth”, and for network building, and call for strengthening the policy side of the Platform. However, there is a general lack of recognition of the critical role played by TSUs in operationalising IPBES assessments and other initiatives; this largely ‘invisible’ work of the TSUs is exacerbated by very little formal documentation in the way of guidance or best practice for TSU roles, expectations, and necessary resourcing requirements, resulting in an ad hoc approach to TSU establishment and commitments. This seeming lack of appreciation of the critical TSU role compromises TSU effectiveness by resulting in under-resourcing TSUs and missed opportunities in the potential role of TSUs in the post-assessment phase.

The location of the secretariat in a UN entity comes with both positives (HR, secondment, legal advice, budgetary oversight, training, etc.) and negatives (procedures for validating expenses, procurement, delays given the location of UNEP HQ functions in Nairobi). In addition, the review records the operational and administrative challenges created by the remote location of the Secretariat in the UN Bonn Campus, from the hosting agency (UNEP) in Nairobi. These include time lags in required administrative procedures such as in validation of expenses, procurement, etc., which add to the workload of the Secretariat. A clear need for expedited management and administrative communications channels with UNEP is highly desirable. The secretariat provided one internal organigramme, and one of the UNEP arrangements, which are shown below. It is clear that the complex demands and workload of the secretariat has produced deliverables *only* by staff working way beyond reasonable expectations and spreading themselves across several areas. Such arrangements are not commensurate with being able to continue to produce high-quality outputs for long periods of time.

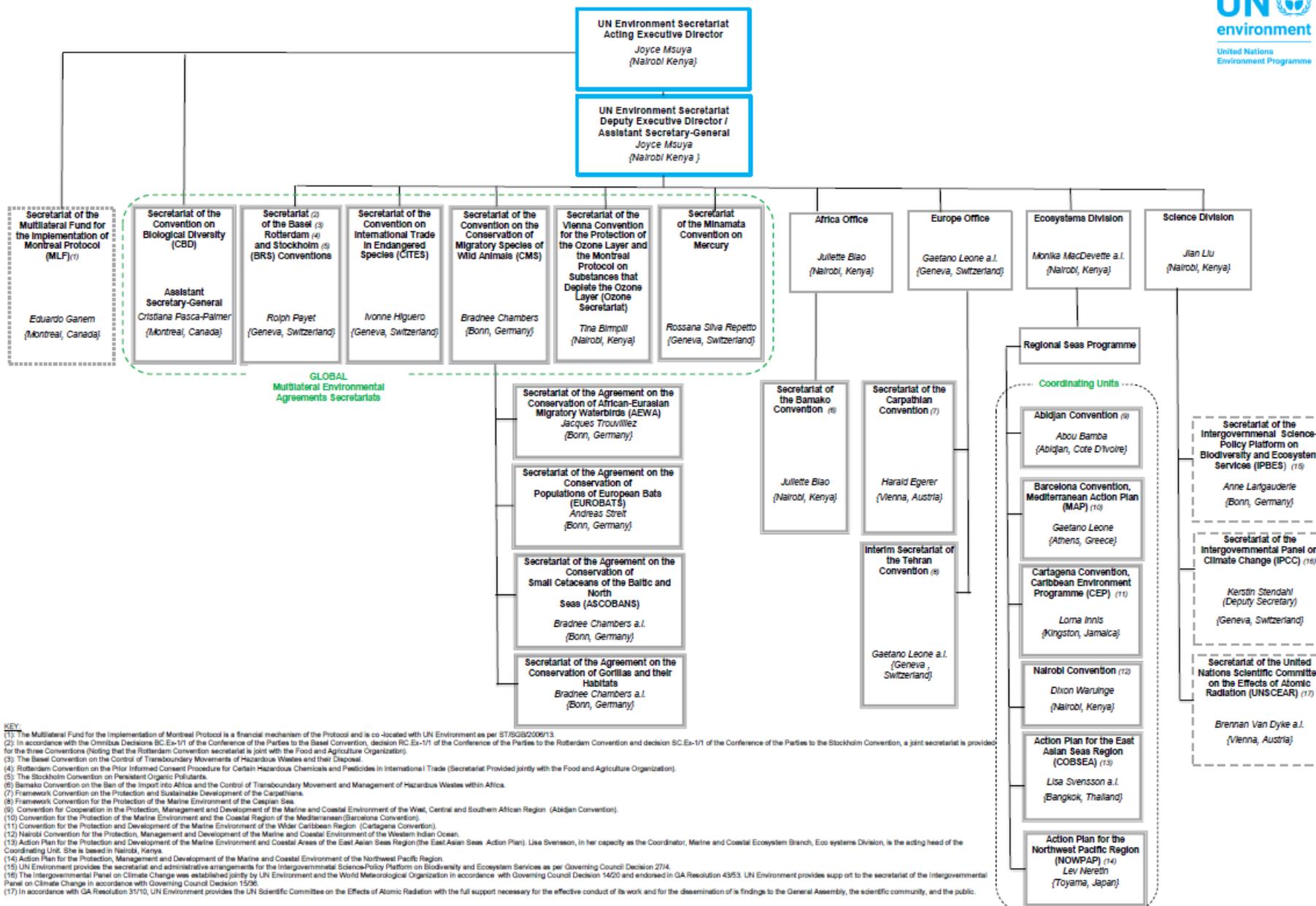
²⁵ More than 70% of respondents who know IPBES well identified their performance as satisfactory or very satisfactory. Responses were consistent across the four stakeholder groups.

²⁶ 50-60% of respondents in the different stakeholder groups who know IPBES well identified their performance as satisfactory or very satisfactory.



December 2018

Multilateral Environmental Agreements and other Entities to which UN Environment Provides the Secretariat or Secretariat Functions



KEY:
 (1) The Multilateral Fund for the Implementation of Montreal Protocol is a financial mechanism of the Protocol and is co-located with UN Environment as per ST/SGB/2009/13.
 (2) In accordance with the Ombuds Decisions BC.Ex-1/11 of the Conference of the Parties to the Basel Convention, decision RC.Ex-1/11 of the Conference of the Parties to the Rotterdam Convention and decision SC.Ex-1/11 of the Conference of the Parties to the Stockholm Convention, a joint secretariat is provided for the three Conventions (Noting that the Rotterdam Convention secretariat is joint with the Food and Agriculture Organization).
 (3) The Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal.
 (4) Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade (Secretariat Provided jointly with the Food and Agriculture Organization).
 (5) The Stockholm Convention on Persistent Organic Pollutants.
 (6) Bamako Convention on the Ban of the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa.
 (7) Framework Convention on the Protection and Sustainable Development of the Carpathians.
 (8) Framework Convention for the Protection of the Marine Environment of the Caspian Sea.
 (9) Convention for Cooperation in the Protection, Management and Development of the Marine and Coastal Environment of the West, Central and Southern African Region (Abidjan Convention).
 (10) Convention for the Protection of the Marine Environment and the Coastal Region of the Mediterranean (Barcelona Convention).
 (11) Convention for the Protection and Development of the Marine Environment of the Wider Caribbean Region (Cartagena Convention).
 (12) Nairobi Convention for the Protection, Management and Development of the Marine and Coastal Environment of the Western Indian Ocean.
 (13) Action Plan for the Protection and Development of the Marine Environment and Coastal Areas of the East Asian Seas Region (the East Asian Seas Action Plan). Lisa Svensson, in her capacity as the Coordinator, Marine and Coastal Ecosystem Branch, Ecosystems Division, is the acting head of the Coordinating Unit. She is based in Nairobi, Kenya.
 (14) Action Plan for the Protection, Management and Development of the Marine and Coastal Environment of the Northwest Pacific Region.
 (15) UN Environment provides the secretariat and administrative arrangements for the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services as per Governing Council Decision 27/4.
 (16) The Intergovernmental Panel on Climate Change was established jointly by UN Environment and the World Meteorological Organization in accordance with Governing Council Decision 14/20 and endorsed in GA Resolution 43/53. UN Environment provides support to the secretariat of the Intergovernmental Panel on Climate Change in accordance with Governing Council Decision 15/26.
 (17) In accordance with GA Resolution 31/70, UN Environment provides the UN Scientific Committee on the Effects of Atomic Radiation with the full support necessary for the effective conduct of its work and for the dissemination of its findings to the General Assembly, the scientific community, and the public.

Finding 19: The IPBES website is not fit for purpose, although it has seen some improvements. It is unwieldy, not user-friendly and often lacks the information that is most often sought.

Currently, there appears to be no overall Information Management Strategy (IMS), resulting in a lack of adequate investment in Information & Communication Technology (ICT) platforms that, if developed, could help partially to alleviate the workload for both Secretariat and TSUs (as well as all other IPBES stakeholders and role-players).

4.6. Taskforces and expert groups

Finding 20: The establishment of supporting bodies to the Plenary (e.g. expert groups and taskforces) is a grey area in terms of structures, defining objectives, accountability, status, utility of outputs and sunset clauses.

Task forces and expert groups have been established by the Plenary as part of the "institutional arrangements needed to implement the work programme" (decision IPBES-2/5).

Three task forces have been established by the Plenary on (i) capacity-building (for the identification and prioritization of capacity building needs to implement the Platform work programme, and implement capacity building activities); (ii) indigenous and local knowledge (to facilitate a roster and network of experts to support the Platform's work to develop procedures and approaches for working with indigenous and local knowledge systems and establish a Participatory Mechanism for indigenous and local knowledge systems, and (iii) knowledge and data (identification and prioritization of key scientific information needed for policy-makers and the development of an information and data management plan) for the period 2014-2018 with terms of reference.

A number of expert groups have been set up on (i) Policy support tools and methodologies (to develop a catalogue of policy tools and methodologies); (ii) Scenarios and models: following the approval of the SPM of the assessment, to conduct further work in this area (decision IPBES-4/1) to provide advice to all the expert teams, in particular those working on the thematic, regional and global assessments on the use of scenarios, and to catalyse the further development of scenarios and associated models by the broader scientific community; (iii) Values (development of a guide on the conceptualization of values of biodiversity and nature's benefits to people, and between IPBES-4 and IPBES-6 ensuring that values and valuation are incorporated appropriately into the Platform's assessments and since IPBES 6, this role is undertaken by the authors of the values assessment). In addition, expert groups are established for each assessment.

No easily identifiable IPBES resolution/s provide detailed principles and guidance for the establishment and resourcing of supporting bodies such as experts groups, taskforces and working groups, although all were "for the duration of the (first) work Programme". Each taskforce or group has a resolution establishing it, but these occurred in an ad hoc fashion, with no overall guidance on form and function of these two categories. Accordingly, each taskforce has a different idea on what their role is, and their relationship with other subsidiary bodies. There have been irregular attempts to hold joint or back-to-back meetings of taskforces, but feedback from participants suggests these have not been particularly useful. A further key difference is that taskforces have had funds

identified for their work, expert groups seem not to have, and therefore rely solely on opportunity or chance funding, or they work virtually.

4.7. Recommendations

Recommendation 5: The exact legal status of IPBES should be clarified and effectively communicated as this has wide-ranging implications, including in terms of partnership development, fundraising and communications. The fiduciary responsibility of UNEP regarding IPBES needs clarification, and if necessary, any agreement may need renegotiation.

Recommendation 6. The principles of scientific independence and the appropriate segregation of duties - which remain of critical importance to ensure the legitimacy and credibility of IPBES - should be strengthened through appropriate revised modalities and procedures.

The scientific independence principle should be reaffirmed and should lie with the assessment co-chairs. Assessments, including production of the SPMs should proceed without requiring MEP/Bureau participation, unless input is specifically requested by the co-chairs. Obviously, the Bureau/MEP can provide input to Plenary on any inconsistencies they detect.

Recommendation 7: The “policy relevant but not policy prescriptive” principle should be supplemented with a principle on co-design, co-production and co-implementation, with appropriate procedures in place to maintain scientific credibility and independence.

The panel has heard in interviews and from the survey that the balance between policy relevant and policy prescriptive needs to be much more nuanced. The ability to go beyond bland statements to more targeted or choice-oriented guidance, yet not fully prescriptive policy options would vastly improve the utility of the SPMs.

Recommendation 8: IPBES needs to diversify and be more explicit about the different kinds of expertise needed for different activities, and the criteria applied for expert selection, to strengthen the policy dimension within IPBES. In addition to the existing criteria for regional, gender and disciplinary diversity/scientific credentials, criteria aiming to strengthen the capacity of IPBES to operate at the interface between data, science, policy and practice should be included.

These could include sectoral diversity, practitioner expertise (people operating at different scales), policy experts. The policy expertise needed within IPBES covers at least four dimensions:

- (i) expertise on policy analysis and evaluation i.e. experts that experience in identifying and assessing policy options, and applying policy tools like impact evaluation, cost-benefit analysis, etc.
- (ii) expertise in brokering scientific evidence to policy-makers i.e. scientists experienced in briefing policy-makers and policy specialists experienced in science.
- (iii) expertise in bridging knowledge across academic fields and sectors
- (iv) expertise in implementing policy

As for other types of expertise, policy experts should take part in their individual expert capacity.

Importantly, this should not result in the assessment process becoming political but rather enable for the assessment process to be better framed to address policy issues, assess policy options and provide actionable findings.

To fulfil its mandate as a science-policy interface mechanism, IPBES needs to explicitly position itself and develop capacities to bridge science and policy more effectively. Collaboration with organisations such as the International Network of Government Science Advice (INGSA), operating under the International Science Council, could be helpful in developing the network and capacities needed to work at the interface between science and policy.

Recommendation 9: There is a need to improve the reach of the process for nominating individuals to take part in the Platform’s activities, and to improve the quality of the experts nominated to IPBES. This is a key responsibility of members of the Platform. One approach could be to establish national IPBES committees, chaired by the national focal points that can assist the nomination processes.

IPBES Plenary, through the secretariat, should ensure that the call for inputs, including nominations is equitable to all regions in terms of language, timing, terms of reference, commitments, etc. The Bureau currently has a responsibility in clearly communicating the criteria, the time commitments involved, being transparent in the decision-making process, and communicating back to the nominating bodies, given IPBES’ reliance on in-kind contributions and engagement of a wide range of institutions. The nomination process is not only about securing nominations for tasks, but also nurturing relationships with existing and potential contributors to the Platform. The Plenary and all stakeholders have a joint responsibility in ensuring maximum reach to attract nominations, and to feedback the results from activities resulting from the nominations. This may involve actively seeking engagement from organisations less involved with IPBES to date such as universities, research institutes, think tanks, the private sector, etc. and actively building scientific and policy networks at national level to strengthen IPBES in a dual way, by contributing expertise to IPBES and disseminating and using IPBES outputs nationally.

Recommendation 10: The separation created by the establishment of the MEP and the Bureau as two distinct bodies has become both cumbersome and seems to add little value. Considering other constraints (notably in terms of the budget and staff time used to support committees), there is an opportunity for a more streamlined governance architecture that the Plenary should consider going forward.

Recommendation 11: The current rules of procedure need to be checked for relevance, updated as necessary and made accessible in a more user-friendly way.

- Bring all the rules of procedure into one single document or web-enabled document management system.
- As part of the Information Management Strategy (IMS) described below, the website needs to be powered by a relational database platform which enables tracking of governance document evolution, related documents, timelines, etc.
- The Rules of Procedures (RoP) need to be revisited and assessed for continued relevance in the light of this review and its recommendations.

Recommendation 12: There are opportunities for strengthening the impact of the secretariat including through matching expectations with the resources available, administrative processes and reporting lines with the host agency and the development of an information management strategy.

- The Plenary needs to scale back expectations of the Work Programme and make it more commensurate with available budget and thus staffing and other resources.
- The reporting and administrative lines with the hosting agency (UNEP) and within the Secretariat (including TSUs) needs clarification and improved communication channels.
- A clear, up-to-date organogram on the hosting relationship, structure and reporting lines would strengthen clarity and engagement with outside stakeholders.
- IPBES needs an Information Management Strategy (IMS) and implementation plan, to cover both intranet requirements i.e. relational database of document repository, incorporating all internal standard operating procedures and guidance documents for Secretariat, TSUs, and all other participants and supporting bodies, as well as the extranet for external access and use, including communications, public domain reports, popular public access, etc. For an international initiative that will have expanding information management and data curation issues, maximum use of available relevant ICT platforms is a key requirement for optimising effectiveness.

Recommendations 13: Greater recognition of the critical role of the technical support units within IPBES, e.g. in operationalizing the roll-out of assessments, is required and needs to be formalized and better supported to ensure more consistent engagement of the technical support units in the work of IPBES.

Options for improving recognition and effectiveness of TSUs include:

- The ‘invisible’ work of all TSU staff needs greater recognition and acknowledgement e.g. names and roles listed in the assessment reports where this is not already standard practice.
- As is already the case for some, TSUs should be kept operational for around 6 months post-assessment, as they harbour all the knowledge regarding process, content, authors, etc and can greatly assist with assessment outputs, communications, record-keeping and all other associated processes once an assessment is complete.
- The Plenary meetings afford an opportunity for TSU staff to interact and exchange ideas and learning; this needs to be built into the Agenda as very productive use of their time.
- TSU standard operating guidance documents are required to capture the learning and best practices and be used in formal induction processes for new TSUs as they are established.

Recommendation 14: IPBES should develop comprehensive guidance on national focal point roles and good practice (while allowing for countries to define their own modalities) and develop dedicated channels for communications between IPBES and national focal points and for interaction among the national focal points themselves.

Some potential operational improvements to achieve this include but are not limited to, the points below. The panel recognises this implies additional resources, but the rewards may well outweigh the costs:

- More frequent informal and formal two-way communications from IPBES Secretariat to NFPs to stimulate collaboration, mutual understanding, forward planning. Some “peak” stakeholders could also complement this function for e.g. IUCN, OEN.
- Mechanisms to improve this situation could include a single point of contact for NFPs per region at the Secretariat, an NFP knowledge portal on the website, a regular NFP newsletter, fora for NFPs to share good practices e.g. prior to Plenary meetings, and establishment of regional networks of NFPs, co-ordinated at least quarterly by the Bureau members from the region e.g. regular conference calls with regional co-chairs as currently undertaken by the WEOG co-chairs.
- Countries should be incentivised to create complementary mechanisms to support their NFP, e.g. resourcing dedicated national SPI platforms on IPBES to catalyse and coordinate contributions to IPBES activities, and utilise IPBES outputs, as well as better link to MEA NFPs, and mobilising national scientific and policy communities through relevant national bodies, and internationally through the ISC for instance.

5. IMPLEMENTATION OF THE FIRST WORK PROGRAMME

The initial IPBES work programme was aspirational, very ambitious, and true to the Busan outcome document. The resources that IPBES currently spends on the completion of the first work programme on an annual basis is beyond the current budgetary resources (and has extended the Secretariat staff well beyond reasonable expectations). Further, the number of experts required to produce each assessment or output assures that the limited pool of available scientists and managers will be stretched to accommodate future needs. Nonetheless, assessments especially, and their associated Plenary-agreed Summary for Policy-Makers, represent a large advance in our global knowledge of biodiversity and ecosystem services, and have extensively contributed to community and capacity building among BES scientists, and supported indigenous knowledge being brought into assessment processes.

5.1. Assessing the state of knowledge

Finding 21: The large volume of scientific assessments, and the associated summary for policymakers adopted by the Plenary, represent a large advance in our global knowledge of biodiversity and ecosystem services, and have contributed to the building of understanding and capacity among a range of knowledge brokers and policy developers and to the transfer of knowledge across the knowledge-policy interface.

In the first six years of its existence, IPBES has achieved the release of seven assessments and the commencement of three others that includes working on inclusion of ILK in scientific assessments. The production of assessments relies on a large community of experts for both authors and peer reviewers, the establishment of TSUs, taskforces and the network of National Focal Points to support the overall assessment process, especially through engagement in the scoping phase, nominations of experts, feedback on drafts, negotiation and approval of SPMs, and dissemination of the outputs at national level.

The process by which IPBES assessments are produced, creates a global scientific and synthesis community that might not otherwise have previously existed. The impacts of the IPBES-created scientific community often expand beyond the production of assessments, into production of scientific literature and other products that influence the direction of BES science.

Finding 22: While it may be premature to assess the policy impact of the assessments produced by IPBES to date, there are several factors that limit the policy relevance of the assessment process and the reports, and therefore their likely influence on policies and decisions in the long run. They include:

- a. IPBES tends to see assessments as end products rather than as part of a wider, more complex and longer-term process to influence policy.

- b. Members of the assessment scoping teams have been largely dominated by natural scientists (working on biodiversity issues), and an analysis of the scoping documents found little reference to either the co-production of assessments as a core approach or to communications or capacity-building efforts activities that would occur in conjunction with the assessments. The regional assessments made more of capacity building as part of their activities.**
- c. With the exception of the pollination and pollinators assessment, their scope is often seen as occurring over scales that are larger than that by which biodiversity management typically operates.**
- d. IPBES assessments have not sufficiently incorporated reviews of the effectiveness of existing policies.**
- e. IPBES tends to see assessment as the ultimate products to influence policy.**

The online survey found that around 70% of respondents in the four stakeholder groups who know IPBES well perceive its assessments as having high scientific integrity and quality, produced through effective, legitimate and transparent processes. However, there are indications that multiple interests across sectors and institutions have not yet been sufficiently integrated, and that the co-design and co-production through dialogue and cooperation between multiple stakeholder groups can be improved.

All assessments are produced only after the development of a scoping document that identifies the topics and the structure by which the assessment should proceed. The scoping documents are prepared by a limited number of experts in a relatively short time frame (1 year or less) after a topic is approved by the plenary. Like the assessments, however, members of the scoping teams were largely dominated by natural scientists (working on biodiversity issues) and an analysis of the scoping documents found little reference to either co-production of assessments as a core approach or scant reference to either communications or capacity building activities that would occur in conjunction with the assessments. The final scoping document is a product of plenary negotiation and agreement.

IPBES assessment are produced over a 2-3-year period of production, from the scoping to the review and publication of the final product, requiring multiple large meetings to assemble, which are often costly both in terms of time and travel expenditures. The assessments themselves rely on a large group of scientific experts who donate time that, in theory are balanced across many different avenues (disciplinarily, geographical, expertise, etc.). Authors are generally selected based on their scientific credentials, often limiting the participation of practitioners and managers to be a part of the assessment process. The process for nomination of experts is well defined, although the final selection of authors is not always clear to members and others participating in IPBES.

The timeliness of IPBES products is affected by the long process by which all assessment currently occurs creating a situation where the initial demand trigger and need may have passed before the final IPBES product has been produced. The Land degradation assessment is a good example where during the assessment process the UNCCD was separately establishing an SPI and performing a similar exercise. Another example on the pollination assessment is the creation of a pollinator action plan in the US that was initiated at about the same time as the IPBES assessment was launched, but the national plan was completed before the IPBES assessment was finalised. This meant the impact

of the Pollinator assessment in the US on policy action was missed. In contrast, the IPBES pollinator assessment has prompted policy discussions in a number of countries (see section 7).

The online survey suggests that less than 50% of respondents that know IPBES well thought IPBES was doing well at reviewing the effectiveness of existing policies and actions. A review of all scoping documents suggested that in most scoping documents the direct linkage to impacts was missing or at best too generic for actual policy linkages. For example, within the Pollinator scoping document (IPBES/2/17), there is no direct call to explore the impacts of any management techniques on pollination. Further within the generic regional and sub regional assessment report (IPBES/3/18), there is a direct call (d) to explore “...the actual and potential impacts of various policies...”, the details of which policies one might explore are largely missing (except for the European and Eastern Asia report) in the specific sub regional scoping documents. A statement from the online survey suggested, “Using policy relevance as the guiding principle for organising assessments” could improve the effectiveness of IPBES.

Finding 23: Linked to the previous finding, the lack of policy considerations in the process results in the summaries for policy makers that are often too generic and do not allow Governments to take immediate and effective action in their own territories, even though they may be helpful in international discussions.

The Summary for Policy-Makers (SPMs) providing the linkage to policy options is the only document that is agreed to by the plenary. SPMs are meant to summarize the key points found within the much longer assessment in a format that can be used for briefing policy-makers or to be used for development of possible policy actions. Interviews with NFPs and other suggested that many indicated that the SPMs often were not overly useful to crafting policy action, lacking in specificity needed to empower action, and often were too long to be used as briefing documents. For example, the pollination and pollinators assessment had the largest media uptake of any of the assessments produced by IPBES – as it was also the first to be released-, but the media impact was short lived and often did not continue beyond the initial release of the SPM. However, after the assessment was finalized, the lead authors of the assessment, produced a subsequent paper on “10 policies for pollination²⁷” highlighting specific action that nations could take to stem the loss of pollination and pollinators which was viewed by some as a much more effective way to communicate policy relevant information rather than the SPM. The regional assessments SPMs were seen to be particularly lacking in actionable recommendations.

No formal program exists to turn SPM key messages into actions are available within IPBES, member states and stakeholders are left to develop their own approaches to turning messages into potential actions. Below is one attempt from the review panel to turn America’s sub regional key messages from the SPM into possible actions national governments may wish to take, without being policy prescriptive.

SPM Key Message	National Message
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²⁷ Dicks et al. 2016. Ten policies for pollinators. Science. Vol. 354, Issue 6315, pp. 975-976

<p>There are options and initiatives that can slow down and reverse ecosystem degradation in the Americas; however, most ecosystems in the Americas continue to be degraded.</p> <ul style="list-style-type: none"> • An increase in protected areas by most countries is contributing to maintaining options for the future • Ecological restoration is having positive effects at local scales, often speeding up ecosystems recovery and improving the ability of such areas to provide nature's contributions to people. • Protected and restored areas contribute to nature's contributions to people but are likely to continue to comprise a minority of the land and sea of the Americas, so sustainable use and management outside protected areas remains a priority. 	<ul style="list-style-type: none"> • Protected areas are effective for protection and maintenance of biodiversity ecosystem services • Restoration can be effective, but it is expensive and doesn't always work • Prioritize development of sustainable policies for lands outside of protected areas, such as creating multiple use areas (honestly the SPM really didn't help here.)
<p>Policy interventions can be more effective when they consider causal interactions between distant places and leakage and spill over effects at many levels and scales across the region. (I honestly have no idea what this says)</p>	<p>Development of bi and multi-lateral trade agreements, that incorporate biodiversity and ecosystems services within their framework can help stem the loss of biodiversity.</p>
<p>Mainstreaming conservation and sustainable use of biodiversity in productive sectors is extremely important for the enhancement of nature's contributions to people.</p>	<p>Biodiversity and ecosystems services loss can be limited when ministries of the environment work collaboratively with other ministries in policy, regulation and development work (i.e. transportation, agriculture, etc...)</p>
<p>Implementation of effective governance processes and policy instruments can address biodiversity conservation and enhanced provision for nature's contributions to people.</p>	<p>Regulations and policies alone won't stem loss of biodiversity and ecosystems services, programs that also affect human behaviour (e.g. grocery bag tax) will also be necessary.</p>
<p>Knowledge gaps were identified in all chapters.</p>	<p>Emphasis should be on increased monitoring and development of research agendas focused on linkages between biodiversity and ecosystem service production.</p>

Finding 24: There are a range of knowledge management approaches and tools now available, in particular for literature reviews and evidence synthesis, that could usefully supplement the formal policy-driven intergovernmental process. Other alternative mechanisms for assessing the state of knowledge on issues (e.g. web-based assessments and machine learning approaches) are becoming increasingly available and could help IPBES to build on its core strengths (e.g. its inclusive and experimental nature).

Large-scale assessments processes, such as IPBES, face a number of compounded challenges, including:

- The rapid growth of relevant academic literature and other sources of evidence to be considered which makes it challenging for the science to be cumulative;
- The level of maturity of the science across the various issues to be considered and the different paces at which the scientific knowledge is developing (e.g. for climate change, the climate science is well established while the impacts and solutions are rapidly-moving fields);
- The call for assessment to be more policy-oriented and solutions-oriented which involve, among other aspects, the need for timely inputs, and here there are trade-offs between speed and thoroughness (Donnelly et al. 2018);
- The reliance on volunteer-time from scientists to participate in time-consuming and complex assessment process, drawing on limited pool of internationally recognised experts from otherwise fast-growing scientific fields;
- The different levels of capacities among experts and authors which make it challenging to cover all aspects of the assessment with equal level of depth.
- The lack of funding available generally for synthesis work.

Box 5: ScienceBrief.org: an online platform reviewing the state of the scientific literature on critical areas such as climate change and biodiversity.

Launched in 2018 by the University of East Anglia (UK), ScienceBrief builds on existing scientific assessments such as IPCC and IPBES. ScienceBrief starts from key statements produced by Editorial Boards based on the existing scientific assessments where they are available. The first two pilots are Carbon Cycle, and Pollinators, Pollination, and Food Production. Expert contributors submit and interpret evidence on the statement topic, which is then appraised by the expert community. The combined submissions and peer appraisal signpost the status and strength of scientific consensus on the given topic (i.e. the new paper either supports, brings new evidence, or refute the statement often drawn from the assessment SPMs), and highlight sources of uncertainty as well as further research needs. Emerging topics are also posted where no prior-assessment exists.

The aim is to supplement the formal intergovernmental assessment process by aiding the initial stage of literature compilation, providing an engagement mechanism for the global scientific community, and the post assessment phase of

Box 6: SciOps: Science and Innovation Workforce Panel Opinion

Survey (SciOPS) is a pilot initiative developed by the CSTEPS at ASU that proposes to establish a standing survey panel of world experts from different disciplines who would be recruited from industry, university, nonprofit and government sectors, which provides rapid high-quality expert input on important selected topics. SciOPS administer rapid response surveys to collect high-quality policy and decision relevant data from a demographically representative group of experts located in different disciplines, sectors, and locations.

The panel would be continuously updated and managed by the team. Invited members of SciOPS would agree to respond to a small number of surveys each year; none of the participant-members would be overburdened with excessive requests. The long-term goal is to create a tool to conduct surveys and generate high-quality information that meet academic research standards but it is timely and relevant for policy and decision making in government, non-profits, industry, and other stakeholders organizations.

The longitudinal and large-scale approach would address one of the greatest challenge of science policy interface: the stabilization of the relationship between science and policy communities for enhanced interactions to foster knowledge-sharing and mutual understanding over time around major continuing themes or problems. Besides, the trans-disciplinarity approach in building up the survey tool and in the panel itself would allow higher standard data by taking into account the views of the widest range of knowledge holders (scientists, practitioners, policy-makers) and knowledge types (technical, managerial, situational and scientific) and ultimately provide a broader more representative input from the broad expert stakeholder community.

This context could provide an opportunity for IPBES to experiment with other modes of conducting assessments, in particular in the early stages of the assessment process, when it comes to compilation and analysis of the literature, as well as maintaining on an on-going basis the state of knowledge on key issues rather than having to revisit them from the start at regular intervals. The Science Brief initiative developed by the University of East Anglia or the SciOps initiative developed by the Center for Science, Technology and Environmental Policy Studies (CSTEPS) at Arizona State University provide useful examples of how the field of knowledge management and synthesis is evolving to support the much-needed expert-based policy-driven assessment processes.

5.2. Knowledge generation and data

Finding 25: During its first programme of work, IPBES had noteworthy successes in catalysing the generation of new knowledge. Regarding data management, there has been insufficient attention to developing an infrastructure, standards and guidance for systematically recording the data used in assessments, which

is an important consideration to ensure that the work of IPBES is cumulative.

The knowledge and data function of the work programme within IPBES was primarily supported through the creation of a knowledge and data task force to operate under the Bureau. The knowledge and data taskforce is supported by a technical support unit that is funded by the government of Korea. The taskforce's initial charge was to catalyse the development of new data and knowledge (in support or as identified as needs by IPBES assessments and other activities) and to develop a web-based information and data management plan to assure continuity in data used for assessment activities. The taskforce and its support unit have focused on three main activities: (i) identification and recommendation of core indicators and data to be used in IPBES assessments, (ii) creation of a web-based information management system, (iii) and catalysation of new knowledge.

The taskforce did complete a recommendation of core indicators and highlighted indicators to be used across most assessments (to assure continuity in results), although as even the taskforce themselves state, the indicators are largely focused on ecological endpoints and not necessarily social metrics. No analysis of the use of these indicators across the assessments has been done, so how robust the use of core indicators within the individual assessments is uncertain. Scant reference

to the use of indicators was gathered during the interview process or during the online survey. The taskforce has generally been perceived as working less effectively than the other two, in part due to an unclear mandate and insufficient breadth of relevant expertise.

Development of a web-based information management plan was undertaken to assure that data and knowledge used in IPBES assessments would not be lost or to avoid having to recreate them for future activities. However, to date there is no evidence that the systems has been created or the data and/or information used by the ongoing assessments will be captured for future use. The IPBES website for this activity is still undergoing construction.

Beyond the work of the taskforce, IPBES has had a significant success in catalysing new knowledge. The Belmont Forum and BiodivERsA have used work from the Scenarios and Modelling expert group and assessment to catalyse research in the area of scenarios and modelling, resulting in a call for proposals to help fill gaps in scientific knowledge: 21 projects were funded for a budget of over 28M€, bringing together 26 funding agencies from 23 countries and was co-funded by the European Commission. The identification of research priorities in the call for proposals directly referred to the IPBES Methodological Assessment of Scenarios and Models of Biodiversity and Ecosystem Services which identified several barriers and gaps for the wider use of scenarios in policy and decision-making.

Although IPBES is not a research organization, identifying knowledge gaps is an important by-product of assessment production. As part of its initial work programme, IPBES has undertaken a methodological assessment of scenarios and modelling and is currently working on an assessment of values and valuation (both seen as critical knowledge gaps) for completion of IPBES assessments. The review panel, through discussion with experts, found that many policy practitioners view the broad scale use of scenarios to present policy options sometimes confusing. Although this is no reflection on the scientific and creative value of scenarios to inform the development of policy options, scenarios tend to be interpreted by many policy makers either as projections or even predictions. However, the Scenarios work with ILK undertaken in New Zealand in late 2016 was an excellent example of how this process can work positively.

5.3. Policy support

Finding 26: The policy support mechanism of IPBES has been implemented primarily through the development of an extensive online catalogue of policy support tools. However, a range of sources suggest that the policy support function remains the least successfully pursued of its functions.

The online survey and a range of interviews showed that, while IPBES is succeeding in meeting its overall objective²⁸ and advancing all four functions²⁹ albeit to a varying extent, the policy support remains the least successfully pursued to date.

Participation and inclusion of tools into the catalogue is voluntary and it is unclear how extensive the tools within the catalogue are. Interviews and survey results suggest that the online catalogue is not extensively used by governments. However, the survey and interviews have shown a clear demand for IPBES to provide more actual support for policy development including with tools and

²⁸ 80%

²⁹ 62%

methodologies. The challenge of providing appropriate and/or enough policy support is confirmed by the relatively low percentage³⁰ of government respondents who consider IPBES to be meeting governments' need for policy-relevant BES knowledge³¹.

The clear issue is that policy support is interpreted in different ways – often as support for policy generation, not a catalogue of tools that may or may not have utility. This is in line with the constant theme that the policy side of IPBES as a science-policy interface is weakly developed, and this should be a major focus in the next work Programme.

5.4. Capacity building

Finding 27: The capacity-building function was a key element of the Busan outcome (UNEP/IPBES/3/3, annex). Capacity-building was recognized as being necessary to lift the level of global scientific expertise in biodiversity and ecosystem services and to provide capacity for new data acquisition, especially in the global South. The Platform has had important success in that regard, especially with the fellows programme. However, broader capacity-building efforts are still lagging in other areas of IPBES work. As the task is enormous, it is expected that a clearer partnership and stakeholder strategy will help over time to improve this situation.

From the outset, capacity building has been a priority for IPBES and has been supported by a technical support unit funded by the Government of Norway. A capacity building rolling plan was developed to: i) identify the principles, strategic directions, modalities and actions for building and further developing capacities of individuals and institutions based on the priority needs established by the IPBES Plenary; ii) outline aims to achieve and finance capacity-building through the IPBES trust fund, with in-kind support from partners and the task force on capacity-building, as well as support from other sources; and iii) leverage, over time, additional financial and technical resources through matchmaking in cooperation with partners. The capacity building plan (IPBES/5/INF/3) emphasized three priorities: (i) Learning and engagement, (ii) Facilitating access to expertise and information, and (iii) Strengthening national and regional capacities. There is thus considerable mention of partnerships for implementing the capacity building rolling plan. Although commendable efforts have been made to clarify the different types and levels of engagement of partners and capacity building forum have been organized to leverage support, there are still perception that IPBES has not clearly communicated its needs and how partners can add value. Besides, there are few details of how this is effectively working and who is involved.

Since inception the capacity building programme has largely focused on building scientific capacity related to the assessment function of the Platform through webinars, fellowship and training, and significant capacity building as occurred through the assessments themselves as many experts had not previously been involved in such an assessment process before. The Fellowship and training programmes initiated in 2015 comprises 49 fellows from 37 countries who supported all 6 assessments. Training workshops for scientists held across the globe have had, 64 participants from Central Asia and Eastern Europe, 71 participants from Africa and SPM joint writing workshop had 54 participants. Webinars on: the assessment process; the conceptual framework; the pollination

³⁰ 59%

³¹ This percentage varies between 55-60% across all sector-specific stakeholder groups.

report; and the preliminary guide on conceptualization of values (30-minute presentations and 30-minute Q&A-session with an IPBES expert. On average 150-200 people attend each webinar and it has been downloaded by over 1000 people. In addition, a series of dialogue meetings, especially between NFPs and assessment experts, have been organized to manage more specifically the science-policy interface and develop capacity beyond individual and scientific levels. It is expected that such type of activity be strengthened in the future.

So far, almost no capacity building activities have focused on the two other functions of the platform (policy support tool and knowledge and data) confirming the overall focus on assessment in the current functioning of IPBES.

5.5. Coherence and balance across four functions

Finding 28: While much has been achieved in the first implementation phase, there is a strong consensus that progress has been uneven across the four functions. The assessment function has clearly been prioritized in terms of outputs, staff time and budget over the other three elements of the work programme.

The online surveys and interviews with NFPs and partners run as part of the external review process show that progress has been insufficient in the policy support, followed by capacity building and knowledge generation. IPBES offers a strong value proposition for stakeholders that will last for at least the next decade³² [*the period included in the survey question*] - if its implementation progresses well. The latter can still improve, with respect to its policy support mandate and to a lesser extent with respect to its capacity strengthening and knowledge generation efforts. Unless this is attended to, IPBES might lose a significant part of its value for stakeholders.

Finding 29: While recognizing that the scientific output of IPBES has been impressive, the pace at which assessments have been produced raises questions regarding the longer-term sustainability of IPBES work (in terms of finances, in-kind contributions and staff capacity) and the prioritization of the other three functions.

The initial IPBES work programme was aspirational and very ambitious given the limited budgetary and staff resources. Currently, IPBES' spending on the production of assessments on an annual basis is beyond the current budgetary resources (and has extended the Secretariat staff well beyond their available time). Further, the number of experts required to produce each assessment assures that the limited pool of available scientists and managers will be stretched to accommodate future needs and may make scientists reluctant to participate in future activities, although others also point to the value of taking part in IPBES for the network building opportunities and the positive effect on career development.

³² "Value proposition" is here indicated by the extent to which IPBES is not only, in principle, but in fact filling a niche that the stakeholders see as important, even essential. This might not be a nuanced enough definition, but it is the one that was reflected in the survey.

5.6. Indigenous and Local Knowledge

Finding 30: The commitment of IPBES from the start to considering other knowledge systems, especially ILK in its work is widely commended, and efforts have been made to incorporate ILK into IPBES processes, with noticeable improvements and learning over the past few years, not least as part of the on-going global assessment. However, there is room for improvement.

Bringing of I(L)K, among a range of knowledges, to IPBES products has been a key *desideratum* from IPBES inception. This commitment of IPBES to consider other knowledge systems, especially ILK, in its work is widely commended, and efforts have been made to incorporate ILK into IPBES processes, with noticeable improvements and learning in the last few years, not least as part of the on-going global assessment. However, there is room for improvement in some areas.

The online survey, with some interviews, confirmed that IPBES has made significant efforts to engage with different knowledge systems, especially Indigenous Knowledge and Local community knowledge, which IPBES brands together as ILK. As can be expected, it has had its greatest success with the natural science knowledge system; less so with social science and indigenous knowledge systems. The least successful have been outside traditional comfort zones - engaging with policy makers', practitioners' and local knowledge systems.

One respondent noted "There are interesting debates within IPBES about knowledge inclusion. I am not aware of other assessments going this far in order to create dialogue or inclusiveness with other knowledge systems, (e.g. as per the conceptual framework). This is quite different from IPCC. But it comes with challenges: who are the right people to talk for those other knowledge systems? There have been debates on having representatives of ILK people in the MEP and concern that it would undermine the scientific credibility".

Indigenous knowledge has features different from local knowledge – lumping both together is not an effective way of handling these different knowledges, and LK (largely the province of practitioners) has largely been left behind. However, engagement with LK is even more complex and potentially time-consuming than IK, is a key consideration as this work develops.

IPBES has identified three types of IK: ILK experts, experts on ILK, ILK knowledge holders; and all three have roles to play in developing IPBES products embracing IK. Implementation of ILK in the deliverables of the first programme has been through various assessments, capacity building, stakeholder engagement, etc.

IPBES has made concerted efforts to meet the requirement to bring other knowledge systems into its work since 2013, through the agency of the ILK Task Force. The Plenary accepted an approach to bring IK to its products at IPBES 5 (Decision IPBES-5/1, annex II). That approach built on the "methods and Procedures" presented to and discussed at IPBES 4.

Decision IPBES-5/1 had two key actions:

1. Approving the approach to recognizing and working with indigenous and local knowledge and requesting the Multidisciplinary Expert Panel, supported by the task force on indigenous and local knowledge, to implement it.

The Approach has four Phases:

- a. The first phase, the collaborative definition of problems and goals, is to be realized during the scoping of an assessment and should result in the development of key questions specific to the assessment. In general, it is suggested that the following broad groups of questions may be considered and adapted as necessary to the specific subject of the assessment;
 - b. The second phase, occurring once the undertaking of an assessment has been approved, is about synthesizing, and incorporating into the assessment, a wide array of evidence and data from multiple sources of indigenous and local knowledge related to the assessment itself. This process also includes a dialogue workshop, organised by the TSU who also produce a workshop report which yields exemplars for the chapter authors to draw on;
 - c. The third phase focuses on appropriately engaging indigenous peoples and local communities in the review of the various drafts of a specific assessment; and
 - d. The fourth phase aims at sharing knowledge and insights gained through an assessment (“giving back”) with indigenous peoples and local communities once the assessment is concluded.
2. Inviting indigenous peoples and local communities and their representatives, as well as experts on indigenous and local knowledge, to engage in the activities described in the approach, through the Participatory Mechanism.

Whilst many stakeholders cited these efforts as ‘best practice’, an ongoing perception exists amongst some stakeholders that IPBES has not, or at least, has made insufficient efforts, towards recognising and bringing Indigenous and Local Knowledge (ILK) systems into IPBES assessments using all four of those phases, and especially the operationalisation of the Participatory Mechanism.

Finding 31: Engagement with indigenous peoples and local communities seems to have generated important advances but also significant frustrations during the first years of IPBES.

IPBES has led international organisations dealing especially with IK in documenting approaches and procedures to deal with the many different worldviews inherent in IK. The work undertaken by the ILK task force has inevitably focused more on IK rather than LK. IPBES has not yet delivered an adequate Roster of experts and particularly a Participatory Mechanism, as in the terms of reference of the ILK Taskforce.

In 2015 the Forest peoples Program made the following observation in a blog” A critical observation and concern voiced by indigenous and local community participants to the meeting, is that indigenous peoples and local communities have not been successful in gaining recognition as a distinct group of ‘stakeholders’ but formally participate as one group in a very diverse stakeholder group, which includes academics, NGOs, industry, scientific and research bodies and others. While

expressing their solidarity with other stakeholders, the indigenous participants stressed they will continue to interact with the process in their own capacity as knowledge and rights holders.”³³

Finding 32: Participation in IPBES, especially by indigenous knowledge holders, has been impeded by the lack of an operational participatory mechanism.

The establishment of the Participatory Mechanism by “inviting indigenous peoples and local communities and their representatives, as well as experts on indigenous and local knowledge, to engage in the activities described in the approach, in particular through the participatory mechanism” was decided by IPBES 5/1/III, but has yet to be followed through.

Decision IPBES 6/1/III notes “Recalling its decision IPBES-5/1, section III, paragraphs 1–7, including the request to the Executive Secretary to make the arrangements necessary to implement the approach to recognizing and working with indigenous and local knowledge, including arrangements for the establishment of the participatory mechanism, subject to the availability of resources,” and “Requests the Executive Secretary, working with the Multidisciplinary Expert Panel and supported by the task force on indigenous and local knowledge, subject to the availability of financial resources, to undertake a consultation process, in partnership with indigenous peoples and local communities, on the application of the participatory mechanism,”

There is unsurprising confusion amongst IPLC organisations about the form and structure of the Participatory Mechanism, and when it will be operationalised to allow for better participation. The report of IPBES 6 notes that (para 27) the Executive Secretary is “Regarding indigenous and local knowledge systems, she reported that the relevant experts were currently analysing the many contributions received in response to a call for contributions aimed at building a strong indigenous and local knowledge component into the global assessment; that consultations had been held to engage indigenous peoples and local communities; and that the methodological guidance currently under development as part of the implementation of the approach to recognizing and working with indigenous and local knowledge, set out in annex II to decision IPBES-5/1, would take into account the lessons learned in implementing the approach to date, together with thinking on arrangements for the establishment of the Participatory Mechanism.

The implementation of the Participatory mechanism was obviously seen to be quite soon in operation, as ILK experts and Knowledge holders were to be invited to “provide their inputs and suggestions (on the second work Programme) through the participatory mechanism of the Platform (IPBES 6/2 d(iii))

However, to date the Participatory Mechanism has not been established, despite acceptance at IPBES 5. The review panel is aware that MEP has discussed a proposed structure linking a renewed ILK taskforce and the Participatory Mechanism but has not seen full detail at time of writing, although it builds on The Panel does not see linking the taskforce and Participatory Mechanism as an effective solution that will increase IPLC participation in, and strong support for, IPBES processes. This lack of progress on the Participatory Mechanism, under discussion since 2013, but hopefully

³³ <https://www.forestpeoples.org/en/topics/environmental-governance/news/2015/02/including-indigenous-and-local-knowledge-ipbes>

soon to be resolved, does risk a lack of trust amongst IPLC stakeholders, especially their peak body IIFBES.

5.7. Recommendations

Recommendation 15: IPBES needs to align the ambitions and scope of its work programme to its budget and staff capacities. The Plenary has a major responsibility in ensuring that the aspirations are met with commensurate resources to deliver on them.

Recommendation 16: IPBES needs to take a more holistic approach to assessments to ensure that both the process and products serve the IPBES goals of enhancing its role as a science (knowledge)-policy interface, helping to address the issues of biodiversity and ecosystems degradation and ensuring the sustainability of its work. The development of policy options needs to be the basis of all phases of any assessment – and indeed of all IPBES work.

IPBES could improve the policy relevance of its reports by putting more emphasis on the following:

1. Define and explain the nature of the problem(s) – as the case for why BES matter still needs to be made.
2. Define options for addressing the problem(s)
3. Define implications and choices each option poses (including a “do-nothing” option).
4. Develop options – which inevitably involves economics – this is complex, highly contested and caught up in how one values natural capital and ecosystem services vs. human “services”.

An example is the 2019 New Zealand national budget that has to show the budget in terms of economic, natural, cultural and environmental capital. There are few academic economists interested in the question who do not have an obvious political bias in the outcome.

5. Identify a broad range of people with relevant expertise in evidence-based policy formulation or providing opportunities for scientists and policy makers to co-develop capacity in this area.
6. Work with practitioners and managers to determine how policy choice could be implemented.

The starting point may need to be a much more explicit effort to provide simple arguments for why the issues matter, and what the (often stark) choices are (including a do-nothing option).

Governments as Platform members have a key role in the review process of Assessments, but especially the SPMs. The current system of collating comments but requiring them to be raised in Plenary during the approval process no doubt lengthens the process. The drafting and negotiation of SPMs should be more focussed on generating a set of policy options and recommendations relevant to all countries. This is where IPBES may need to seek additional expertise outside of the Platform. For instance, links to the International Network for Government Science Advice (INGSA) network in drafting the SPMs could significantly increase the utility of the range of policy options presented.

Box 7 contains a range of additional ideas suggested to or originating from the review panel to help the Task Force suggested in recommendation 17 in its work to advise the Plenary.

BOX 7: Melange of suggestions to help implementation of Recommendation 16.

- The life-cycle of IPBES products is quite limited with little thought going into how policy support mechanisms should be implemented. IPBES should embrace the entire life cycle of co-production (co-design, co-implementation) for its products, ensuring that all four components of the work programme are integrated.
- The current approach to assessments needs to be examined for cost and time efficiency. Other assessment approaches should be considered (rapid assessment, smaller more targeted assessments). Further, other alternative mechanisms of assessing the state of knowledge on issues, such as use of web-based approaches should be explored.
- Assessments could be framed in a way that stimulates more applicable results in terms of policy making and actions. IPBES should create shorter SPMs focused on action-oriented key messages that can be utilized directly in policy development. The creation of shorter documents with crisper action-oriented statements would allow direct action from the SPMs. This would call for more bottom up engagement and wider inputs at the scoping phase to be more explicit about the knowledge needs that IPBES is seeking to address.
- Downstream dissemination of assessment results by working with NFPs through development of tools from assessments and scientific papers to generate policy useful products will help promote the spread. IPBES should develop a mechanism to support the NFPs, through capacity building and other means to implement the recommendations of its report.
- Diversify products from the assessments (e.g. videos, targeted policy briefs).
- Future assessments could be based on ecological regions rather than political regions, as well as being more focused, topically and geographically to assure better uptake and understanding of assessment results. An example would be a sub-global assessment on Savannah ecosystems, that would cross all political regions.
- Put more resources to communicate and disseminate, “getting outside of the biodiversity bubble and involving a larger group of stakeholders and interested parties” (the scenario expert group is a good example of bringing different knowledge systems together).
- Strengthen and redefine the role of NFPs to engage them more in the broad dissemination of IPBES processes and results, but also develop national teams of experts and scientists to work with the NFP.
- Where possible and with local resources, have NFPs translate SPMs into national languages and allow contributions and knowledge in languages other than English to be incorporated, to enable wide uptake of IPBES-generated ideas.
- NFPs, with the aid of national IPBES committees (see recommendation 9) should establish processes to monitor the effectiveness of implementation of the policy options generated by assessments.

Recommendation 17: The Plenary should establish a time-limited taskforce to examine the range of ways that assessments can be modernized, including ways to channel and enable effective engagement, as well as to examine new structures and ways of working (including through digital means).

The external review has identified some issues that limits IPBES' capacity to operate as an effective science-policy interface to date. These manifest with the current SPMs being too long, carrying little policy implementable information, taking too long to produce, with a large number of people and meetings, and generally have become so generic as to add little to the overall discussion.

In particular, the interpretation and application of the “policy relevant but not policy prescriptive principle” as well as the policy framing of the entire assessment process requires particular attention to maximise the potential of IPBES for policy influence.

Recommendation 18: IPBES needs to review its policy support function and the modalities for delivering on it.

- IPBES should examine the effectiveness and need of the online policy support catalogue and determine whether future investment is worthwhile
- IPBES needs to examine the “policy-supportive” statements within the SPMs to see if they can be used for policy development and/or develop mechanisms to take outputs of assessment reports and the SPMs into practice at all levels.

Recommendation 19: IPBES needs to strengthen its work on knowledge and data to address gaps and ensure that IPBES work is cumulative.

- IPBES should consider an analysis of whether common indicators were used across all assessments and produce recommendations on the use of indicators within its products.
- IPBES needs to advance development of web-based information systems to assure that future assessments can build on previously collected data and information and assure that future work does not have to recreate ongoing activities.
- IPBES should closely scrutinize this common practice of using scenarios for forecasting and prediction and determine whether the scenarios are best used to inform the assessment process.
- Continued work with external funding organizations to spur investment in data gaps should continue. IPBES assessment should clearly identify major data gaps and areas where scientific investment can help advance knowledge, and examine the possibility of producing specific thematic sub-reports where appropriate, perhaps in conjunction with a relevant MEA.

Recommendation 20: The capacity-building function should be continued and enhanced to support the sustainability and long-term impact of IPBES. It should be tailored to its target audiences (e.g. policy-makers and practitioners) and be a component of all IPBES functions.

Capacity building activities have been all about the assessments, with the focus primarily on science - but overall objectives of IPBES are broader and future capacity building efforts should encompass all

four functions. Catalytic opportunities should be sought to build base capacity, should IPBES invest in how to use products.

The Fellows programme is extensive and bring new expertise into the IPBES platform. IPBES should continue and expand this programme as much as is consistent with budgetary opportunities. It may represent a source for external funding support. Most of the capacity building activities have occurred in the global north, future capacity building activities should be targeted to all regions of the world, with a focus on the global south.

Recommendation 21: IPBES should continue to strive to bring ILK and other knowledge systems into all its work.

Recommendation 22: The task force on ILK in its present form should be urgently reviewed with a view to:

- a. Consideration to separating the needs and contributions of IPs should be separated from those of LCs
- b. Rapidly establish the already agreed structure of a respected, transparent and Participatory Mechanism for IPs to participate in effective ways in IPBES activities, including formally receiving information about IPBES products their knowledge has influenced.
- c. Capacity building activity should incorporate issues that enable better participation and interaction with indigenous peoples and local communities.
- d. Specific workshops involving ILK with other knowledge systems should be arranged on a regular basis to help inform the development of IPBES deliverables.
- e. Results from the IK Dialogue processes (which receive considerable commendation) need to be more visible – i.e. directly available through the IPBES website, reflected in communication messages etc.

6. BUDGET AND FINANCIAL ARRANGEMENTS

IPBES finances have been well managed for the first Work Programme. However, the planning and management of IPBES finances can be improved. Key interventions to facilitate this would include mechanisms to provide a more secure and sustainable funding base into the future, that the budget allocations should be systematically aligned with key Work Programme elements and that key financial health indicators be introduced into the financial reporting mechanisms of IPBES.

Prudent financial management is key for the sustainability of membership organisations such as IPBES. This is particularly so when the income received is based on voluntary contributions made on an annual basis and with limited prior notice. By way of example, the financial difficulties faced by IPBES in 2017 underscore the need to ensure that its plans and priorities are formulated in a manner consistent with conservative and income expectations and are not aspirational. The figures reflected here for the period 2013 to 2017 are extracted from the IPBES decisions and annexes labelled “Status of cash and in-kind contributions to the Platform” (e.g. IPBES/6/15 Annex to decision IPBES-6/4). The IPBES finances are assessed using a combination of cash flow measures together with financial health indicators that are appropriate for a non-profit institution like IPBES.

6.1. Overview of the IPBES finances

The Busan outcome mandated a core trust fund to be allocated by the plenary should be established to receive voluntary contributions from Governments, United Nations bodies, the Global Environment Facility, other intergovernmental organizations and other stakeholders, such as the private sector and foundations;

IPBES seek to mobilise three types of resources to successfully and effectively implement its mandate (Annex II to decision IPBES-5/6): (i) cash contributions to the trust fund; (ii) in-kind contributions to support the implementation of the work programme; and (iii) the leveraging of activities of partners in support of IPBES.

Finding 33: The initial capital injection made by Norway, together with reliable and regular contributions from several other members, made it possible for IPBES to fulfil many of its obligations under the first work programme.

Income. IPBES received a total cash injection of 29 million US\$ between 2013 and 2017 (see Table 1). The highest income recorded in a single year was in 2014 (13.6 million US\$) whereas the lowest income received was in 2015 (3.1 million US\$). The single largest contribution was received from Norway in 2014 (8.1 million US\$). This large Norwegian contribution was routinely supplemented by regular annual contributions from at least 11 countries (~3.5 million US\$/ annum), together with sporadic contributions from a variety of members (< 0.5 million US\$/ annum). Setting aside the large Norwegian contribution in 2014 the income of IPBES seems to be stabilizing at around 4.0 million US\$ per annum of which about 3.5 million US\$ can be considered regular income. The average income for the period 2013-2017 was 3.8 million US\$.

While the welcome initial capital injection made it possible for IPBES to complete its activities over the last 3 years (2015-2017), as a “one-off” contribution of significance it also produced a distortion in the

budget. This distortion fed expectations that an extensive work programme was feasible, which in the end was achieved only by activity far in expectation of normal requirements from IPBES staff and many volunteer contributors.

Finding 34: Some members have contributed only sporadically or not at all to date. This does not bode well for the sustainable operations of IPBES and should be rectified.

Table 1. Summary of cash contributions received from 24 countries from 2013 to 2017.

Country	2013	2014	2015	2016	2017	Total
Australia	97,860			68,706		166,566
Belgium				118,243	78,199	196,442
Canada *	38,914	36,496	30,098	30,616	52,619	188,743
Chile			23,136	14,966	13,710	51,812
China		160,000	60,000	2,005	398,000	620,005
Denmark		37,037			39,311	76,348
European Union						0
Finland	25,885	275,626			9,434	310,945
France*	270,680	247,631	264,291	252,218	330,248	1,365,068
Germany*	1,298,721	1,850,129	1,582,840	1,119,991	1,270,997	7,122,678
India	10,000	10,000				20,000
Japan	267,900	330,000	300,000	300,000	203,333	1,401,233
Latvia		4,299	3,944	3,889	3,726	15,858
Malaysia			100,000			100,000
Monaco					23,697	23,697
Netherlands		678,426		636,943		1,315,369
New Zealand	16,094	17,134	18,727	16,258	17,834	86,047
Norway	140,458	8,118,860	58,357	372,420	651,080	9,341,175
Republic of Korea	20,000					20,000
South Africa		30,000				30,000
Sweden*	228,349	194,368	128,535	116,421	255,445	923,118
Switzerland	76,144	84,793	84,000	84,000	84,000	412,937
UKGB & N. Ireland	1,285,694	1,046,145		228,956	193,140	2,753,935
USA	500,000	500,000	477,500	516,306	500,000	2,493,806
Total	4,276,699	13,620,944	3,131,428	3,881,938	4,124,773	
	9	4	8	8		
					GRAND TOTAL	29,035,782

Finding 35: The Platform relies heavily on in-kind contributions from the scientific community, partners and nation States from the self-funded participation of experts from developed countries in the MEP to their participation in assessments and other activities.

Some MEP members from developed countries that have no established IPBES funding lines have self-funded their attendance at the necessary meetings. These issues can promote significant risk of fatigue

affecting the long-term viability of IPBES into the future. To date, IPBES has also been assisted through substantial in-kind contributions since 2012 from UNEP/FAO/UNDP/UNESCO amounting to at least \$ 1m since 2012 (as per financial statements).

Finding 36: Currently, IPBES spends about half its resources on the implementation of the work programme and half on the operation of the Platform and management functions. Most of the funding has been spent on the important regional and global assessments.

Expenditure. IPBES expenditures over the period 2013 to 2017 are depicted in Table 2. As can be anticipated, expenditures have risen over the period and has been between 6.7 and 8.1 million over the last 3 very busy years at IPBES. Between 2015 and 2017 expenditures have exceeded income with the result that the reserve funds, created by the 2014 Norwegian payment, have declined to just over 2.2 million US\$ by 2017. This is the direct result of utilising the IPBES income for the purpose it was received and intended, namely producing several key assessment reports.

Table 2. Summary of IPBES expenditures from 2013 to 2017.

Expenditure (US\$)						
Meetings of the Platform Bodies	1,364,247	552,492	1,189,301	1,419,204	1,106,981	
Secretariat (personnel & non-personnel)	567,496	1,202,821	1,119,176	1,399,703	1,402,465	
Implementation of the work programme						
1. Capacity & Knowledge Foundations		405,112	1,087,211	926,445	728,344	
2. Regional & Global Assessments		508,656	1,962,758	1,166,820	2,366,876	
3. Thematic & Methodological Issues		662,481	1,238,510	347,923	433,065	
4. Communication & Evaluation		172,289	192,950	59,294	211,836	
Total work programme implementation expenses	61,344	1,748,538	4,481,429	2,500,482	3,740,121	
Programme support (8%)		280,308	543,192	425,551	499,965	
Contribution to working capital reserve (10%)			798,223	126,873		
Miscellaneous expenses	66,221					
UNEP programme support (13%)	267,446					
	Total Expenditures	2,326,754	3,784,159	8,131,321	5,871,813	6,749,532
Annual Surplus/ Deficit	1,949,945	9,836,785	(4,999,893)	(1,989,875)	(2,624 759)	
Net Surplus/Deficit	1,949,945	11,786,730	6,786,837	4,796,962	2,172,203	

The net effect of the IPBES income and expenditure patterns are graphically reflected in Figure 3 that clearly demonstrates the sharp decline in the Net Surplus towards 2017.

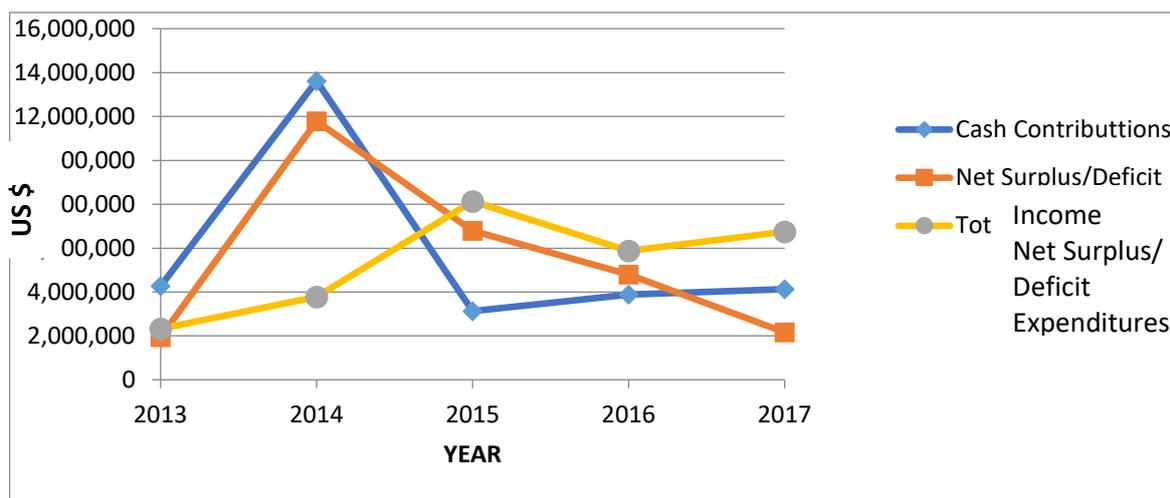


Figure 3: Summary of IPBES income and expenditure patterns for the period 2013-2017

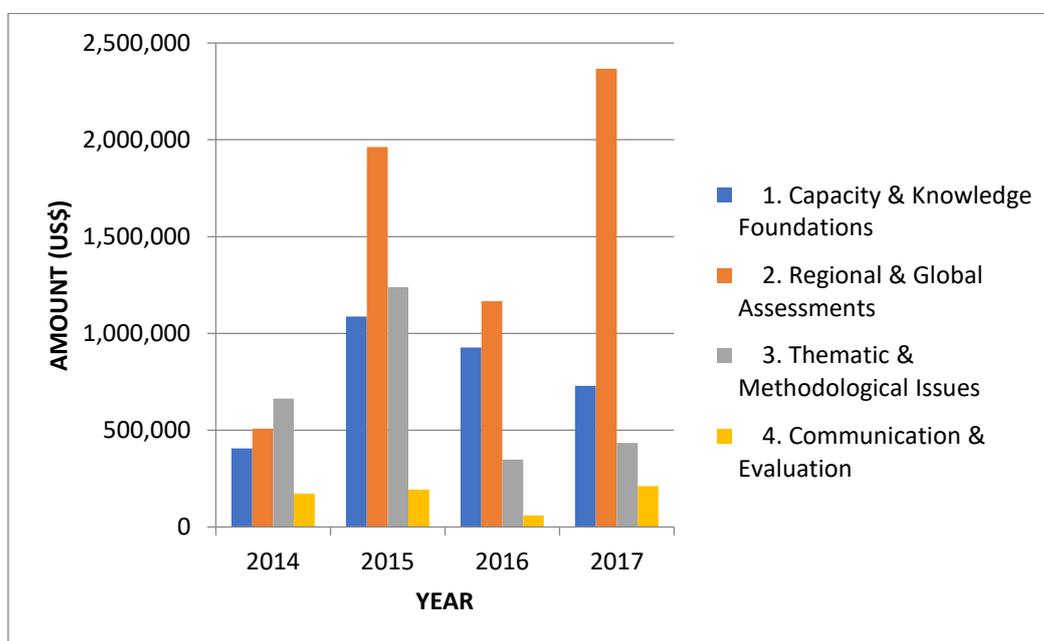


Figure 4: Expenses incurred to implement the four objectives of IPBES (2013-2017)

Finding 37: The available resources have been effectively and efficiently managed to date. The agreed work programme was effectively delivered within the available resources. However, managing long-term requirements through their alignment with reliable income sources should be a priority for the future.

The overarching trend for IPBES is that annual expenditure has been increasing whereas the Net Surplus of the organisation has been in decline. Anticipated expenses related to the completion of the regional and global assessments were most costly across the 4 objectives of the organization between 2015 -2017. Administrative operations required and average 1.1 million US\$ per annum whereas the costs associated with the communication and evaluation functions were lowest at around 150 000 per annum (Table 2 and Figure 4).

6.2. Financial management

Finding 38: The re-alignment of financial resources to ensure the delivery of the assessments in a timely fashion for the first work programme, especially considering the funding problems experienced during the process, was effective and impressive. IPBES should be commended for this achievement. However, it may not be easy to formalize the funding of the assessments and IPBES in the future, and the Platform will always be vulnerable to fluctuations in the level of voluntary national contributions.

There are certain key financial ratios that can be used for assessing the financial performance of non-profit organisations like IPBES. These essentially represent financial health indicators. These ratios can aid in identifying long-term trends and aid the pursuit of financial sustainability of an organisation. A few of these ratios are assessed to demonstrate how they can aid IPBES into the future.

- The first key indicator are the **Net assets**. This is reflected by the Net Surplus/Deficit column in Table 3. Here IPBES is in good health as the balance still reflects an operating surplus. The declining trend should however be monitored carefully.
- The next indicator is the **Net Operating Ratio**. This ratio measures the operating surplus (or deficit) as a percentage of total income to inform about how effectively IPBES is using its annual financial resources to fund annual operations. A positive ratio indicates an effective use of funds (although a ratio that is too high may be a sign of poor resource planning, an overly conservative approach to income forecasting or a large unexpected income), whereas a negative ratio informs that income was insufficient to fund annual operations. Here IPBES clearly started very positively but has been spending more than they bring in on an annual basis with a negative Net Operating Ratio since 2015. Something will have to be aligned here to ensure longer term financial sustainability.

Finding 39: The financial measures clearly reflect the turbulent and rapid start that IPBES made on its new journey. It is important that net assets be well managed in the future, and the net operating ratio must soon be stabilized above zero. The operating reserve ratio is still positive, but the trend is concerning. No information was available to conduct a liquidity assessment, but this should routinely be conducted into the future.

Table 3. Financial performance of IPBES from 2013 to 2017 (US\$).

Financial Performance	2013	2014	2015	2016	2017
Total Reserves	4,276,699	15,570,889	14,918,158	10,668,775	8,921,735
Expenditures					
Implementation of the work programme	61,344	1,748,538	4,481,429	2,500,482	3,740,121
Personnel and related expenditures	2,265,410	2,035,621	3,649,892	3,371,331	3,009,411
Total Expenditures	2,326,754	3,784,159	8,131,321	5,871,813	6,749,532

Net Surplus/Deficit	1,949,945	11,786,730	6,786,837	4,796,962	2,172,203
Net Operating Ratio (Target > 0)	46%	72%	-159%	-51%	-63%
Operating reserve ratio (> 25% ?)	83%	311%	83%	82%	32%

The **Operating Reserve Ratio** compares the size of the reserve to the annual cost of the operation to inform about fiscal stability, with a commonly-used benchmark for non-profit organizations stating that the operating reserve ratio should be at least 25%. Here IPBES is still doing adequately but the trend is in the wrong direction and IPBES should set itself a benchmark that it would want to work towards.

Finding 40: The review panel is aware of the current fund-raising strategy being developed for IPBES to boost the income of the Platform. This is to be encouraged. However, the somewhat restricted attempts to engage the private sector in providing financial support for assessments in exchange for visibility are unlikely to yield significant results for sustainable financing.

A draft fundraising strategy was approved (decision IPBES-5/6). Its implementation has been discussed by the Bureau at its June 2018 meeting and is coordinated by a Head of Development (sponsored by the French government) who arrived in the IPBES secretariat in September 2017. In this draft strategy, a target of raising \$2.5 million annually is set through (i) cash contributions by additional government donors, and identifying potential non-governmental donors, and (ii) in-kind contributions. Actions taken include outreach to CEOs of large companies, and heads of corporate responsibility, interventions in business forums, mapping of target companies, foundations and business groups, and the development of a case for support targeted at the private sector. While no submission was made by the business sector in response to the calls for inputs for the second work programme, an area of interest emerging from exploratory discussions is on indicators for the sector to better monitor their impacts on biodiversity (IPBES/Bureau/11/3). The case for support developed thus far mostly focus on getting financial support to produce assessments in exchange for visibility (logo) on the assessment report and acknowledgments in IPBES communications.

6.3. Recommendations

Recommendation 23: Annual commitments should be aligned with reliable income sources. The average income is approaching the 4 million US\$ benchmark, while only about 3.5 million US\$ is reliable on an annual basis. In contrast annual expenses have now reached some 6 million US\$ per annum. **The agreed work programme should be aligned with the available budget and prioritized as appropriate should short-term adjustments in the work programme be required.**

Recommendation 24: IPBES should set a target for the reserves that should be maintained.

Recommendation 25: It may be prudent for IPBES to determine how much of the available budget should be allocated to the different components of the new work programme.

Recommendation 26: IPBES should initiate an internal discussion on how to regularize the income streams from nation States, especially as the intergovernmental nature of the Platform makes it hard to attract non-governmental funding. This can be achieved through a formula-driven system (e.g. one based on gross domestic product (GDP) or on a combination of GDP and purchasing power parity) or an honour pledge system. It would significantly improve the planning, efficiency and effectiveness of IPBES if the predictable income streams can be rationalised and secured. Ad hoc funding streams will precipitate ad hoc delivery. This may be politically unpalatable but will improve long-term planning substantially. Special projects can also be set aside for earmarked fund-raising initiatives on top of the normal run of events.

Recommendation 27: IPBES should incorporate a series of key financial health indicators (e.g. net assets, net operating ratio, operating reserve ratio and programme efficiency ratio) into its annual financial reporting systems and a liquidity assessment into its annual financial reviews in order to foster a culture of pursuing financial sustainability. Appropriate targets should be specified for each.

Recommendation 28: IPBES should determine an aspirational target to define how much of its annual budget should be earmarked for the work programme and how much should be allocated to the running of the platform and management functions – a 60%:40% split should be aspired to under ideal circumstances.

Recommendation 29: The risk of fatigue in the science community, especially of experienced assessment practitioners who receive little or no reward or recognition, needs to be addressed in some manner. How can IPBES or even nations recognise these non-monetary contributions? IPBES offer important experiences in terms of career, access to new network and collaboration but author prominence may assist. **IPBES should track in-kind contributions (secondments, scientists donating their time) and catalysed funding and report on them as part of the budget.**

Recommendation 30: There is clearly a need to diversify the funding streams of IPBES, e.g. through increased engagement with foundations, pension funds and the private sector³⁴. However, the review panel has found that the ongoing engagements between IPBES and the private/corporate sector are still too underdeveloped and would encourage IPBES to refocus on this issue to enhance its fundraising potential. This is a critical area of work for the Executive Secretary, with support from the Head of Development, and Chair of the Platform.

³⁴ <http://www.futureearth.org/blog/2018-jan-3/state-biodiversity-regions-what-expect-ipbes-2018>

7. TOWARDS GREATER IMPACT

IPBES has already made an important and positive contribution to understanding the underlying root causes of biodiversity loss and ecosystem service degradation and identifying and there are early signs of uptake both within the science and policy community. The theory of change developed by the review panel asserts that contributions to global change from IPBES’s work - given a strong policy orientation – will be well positioned to contribute to large-scale transformative (systems) change, and although that has not been well-articulated in official IPBES decisions, it informs much of the communications materials. It is also no doubt a reason for the high degree of selfless contribution from IPBES staff and the army of volunteer contributors to IPBES’ work.

7.1. Near-term impact

7.1.1. Communications

IPBES’ overall communication strategy is clearly laid out in the document Decision IPBES-3/4³⁵: “the purpose of all communications activities will be to ensure that the Platform is recognised as a credible, relevant, independent and legitimate platform that produces policy-relevant – but not policy prescriptive – knowledge products”. IPBES identifies primary target audiences (policy-makers and UN programmes), and broader audiences (scientific community, ILK holders, and the business sector, ending with the media and public at large). It is significant that its communication activities are seen within the context of engaging stakeholders, and not as an end in themselves. Indeed, the head of communications is also head of stakeholder engagement.

Finding 41: IPBES communications has seen steady improvement over the course of the first work programme. IPBES has had significant success in reaching global policymakers³⁶ and, to some extent, national policymakers and members of the scientific community who are not directly linked to IPBES³⁷. It is perceived as being less successful in reaching practitioners³⁸ (i.e. the implementers of conservation and development projects) and to have largely failed to reach local policymakers, the private sector or citizens³⁹ to date.

IPBES has numerous decisions regarding implementation of communications surrounding assessments and other outputs produced by IPBES. Further IPBES has developed elaborate dissemination strategies for assessments produced in 2018 and 2019, which clearly articulate goals and audience.

A wide range of recent studies from the academic, journalism and NGO world on measuring media impact shows that it is important to distinguish between reach, engagement, and impact. *Reach*

³⁵ http://www.ipbes.net/sites/default/files/downloads/Decision_IPBES_3_4_EN_0.pdf

³⁶ 69% of respondents indicated success

³⁷ Around 40% of respondents in each case

³⁸ 31% of respondents indicated success

³⁹ Fewer than 15% of respondents indicated success

usually means such metrics as potential and actual audience via traditional media, the distribution and number of articles, or levels of website traffic (for example, how widely a report spreads). *Engagement* usually means the extent to which audiences react to a story on social media, including liking, tweeting a link, sharing content, and commenting (for example, how much a report provokes emotional reactions). *Impact* usually means the extent to which a piece of journalism, sustained media reporting or a new report contributes to some sort of change, particularly via a targeted audience (for example, how the media reporting of a study helped to bring about new regulation or policy change). The significance of the differences lies partly in the fact that more media coverage (reach) and audience engagement on social media do not necessarily enhance impact, as large audiences may not be moved to act, or urge others to do so.

Although IPBES communications have broad reach, they have so far had limited impact on the primary target audiences. The initial enthusiasm over the assessment reports disappears rapidly after their release, which is also a reflection of the relatively low public profile of the BES issue. Further, even though IPBES/5/9 explicitly calls for opinion pieces to be developed, to date very few appeared have appeared in major media outlets. Emphasis on engagement for the media has been largely during and post-product release, although samplers or primers have been produced for the launch of the regional assessments and land degradation assessment in all 6 UN languages. There appears thus little work with media during the initial development of the assessments or during the ongoing assessment production.

In IPBES communication implementation plan is also mention of the development of communication products such as visual presentations, fact sheets and social media. On this last element, the IPBES has developed a detailed strategy identifying priority audiences by sector and country, the social media platforms it aims to have to a presence on, and key targeted individuals ('personas'). An assessment report in May 2018 concluded that IPBES had exceeded its targets for the previous twelve months on Facebook, Twitter, YouTube, Instagram and LinkedIn, according to the metrics of a) number of 'followers', b) reach (by total impressions/number of times posts and updates are viewed/accessed, c) engagement (the average percentage of fans/followers who interact with every posts/updates or the total number of interactions) and (d) 'conversions' – the number of times users have completed a desired action/activity).

IPBES has heavily emphasized the leadership of the platform to disseminate results with limited profile given to the co-chairs or lead authors to discuss results although media training has been provided to varying extents, to assessment co-chairs and Coordinating Lead Authors for all 7 IPBES Assessment Reports that have been released.

The IPBES uses sophisticated tools to monitor both its general presence and the presence of its ARs in the media. The software tool Meltwater is used to provide very detailed data on IPBES mentions across thousands of online outlets. This is supplemented by Mention, Talkwater, Google Alert and manual social media scanning. A selection of these results is published on the IPBES media watch site.⁴⁰ The primary criterion for inclusion on the list is that they should either directly mention IPBES in a positive or neutral way or be very directly relevant to one of IPBES' priority areas of work. This latter criterion means that many articles on smaller sites are included, which may only be of interest

⁴⁰ <https://www.ipbes.net/media-watch>

to regional or country-specific stake holders. Journal and academic articles are made available via a different channel.

The IPBES IMPact Tracker analysis has potential but is not systematic and strategic enough. A classification of types of impact would be useful.

Much more detail is available in a special media report (annex 6).

7.2. Longer-term impact

The theory of change constructed by the review panel (Figure 6 below) based on IPBES founding documents, and an interview with the IPBES chair and MEP co-chairs envisages IPBES contributing to positive change for biodiversity, ecosystem services, human well-being through sustainable development. It is important therefore to understand the explicit and implicit ways in which IPBES conceptualizes and implements the relations between knowledge and policy, and the underlying assumptions that are associated with them. Indeed, identifying the assumptions made about knowledge and policy have key implication for defining and measuring impact (Boswell & Smith, 2017⁴¹).

Finding 42: IPBES is, in principle, well positioned to contribute to beneficial environmental change and improvements in human well-being. This aspect of its work has not been well-articulated in official IPBES decisions, but is evident in many of its communication materials.

IPBES has a key role in assisting policy development and implementation through MEAs and nationally. However, IPBES work is catalysing, and relies on these bodies to deliver effectively.

7.2.1. Early impacts on science

Finding 43: IPBES has made an important and positive contribution to understanding the underlying root causes of biodiversity loss and ecosystem service degradation, and identifying critical knowledge gaps. The launch of IPBES has also resulted in calls for, and offers of, support from academic groups and informal regional environmental and conservation coalitions.

The performance of IPBES in the academic literature is starting to make an impact. The Web of Science profile of IPBES as a topic of scientific discourse has grown dramatically. The citation profile of the topic, with an H-Index of 23 (August 2018), is encouraging (see the bibliometric report – annex 5) for more detail.

IPBES references in academic publications has grown significantly after the release of the assessment on pollinators, pollination and food production and its associated summary for policy makers (Pollinat, see below) and the methodological assessment report on scenarios and models of biodiversity and ecosystem services and its associated summary for policy makers (Scen. Mod. See below)

⁴¹ Boswell C., Smith K., 2017. Rethinking policy ‘impact’: four models of research-policy relations. Palgrave Communications. DOI: 10.1057/s41599-017-0042-z

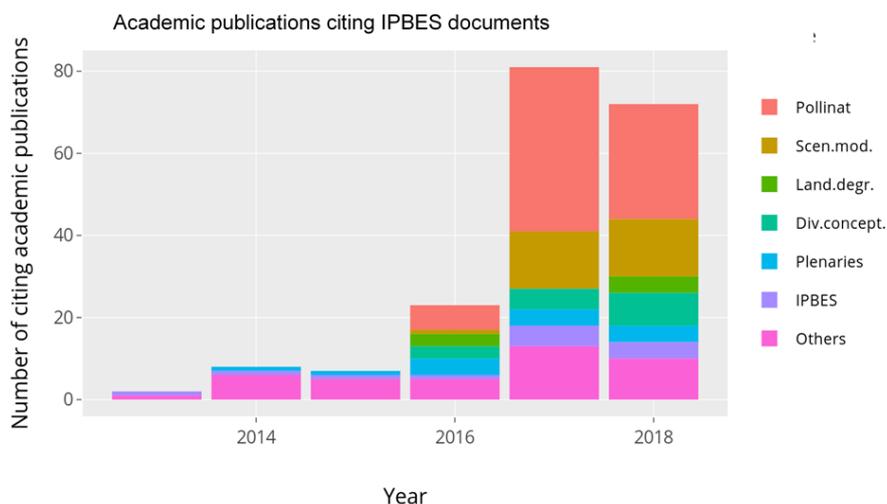


Figure 5: References to IPBES outputs in the academic literature - from bibliometric study

However, IPBES' reach has not extended much beyond biodiversity and conservation, with limited reach into the broader scientific community, including universities, not connected with IPBES.

7.2.2. Early impacts on policy

Finding 44: No definitive statements can yet be made about policy impact, as there is significant time lag between the production of global reports and their translation and appropriation by national actors, and multiple sources of information are considered in the policymaking process. However, there are a number of influencing factors within the IPBES sphere of control that should be considered to enhance the potential for impact. They include a range of appropriate partnerships beyond Governments that are imperative in order for IPBES to have an impact on policymaking and decision-making.

Survey respondents felt that IPBES has had visible influence on the global level and limited influence on the national level. The pollination assessment has examples of international uptake through the CBD: decision XIII/15 "Implications of the IPBES assessment on pollinators, pollination and food production for the work of the Convention", and decision 14/6 on the Conservation and sustainable use of pollinators with an updated Plan of Action 2018-2030 for the International Initiative for the Conservation and Sustainable Use of Pollinators. The Coalition of the Willing on Pollinators is a clear and positive example of success of an IPBES deliverable driven by platform members (see Box 8).

There are also examples emerging of how IPBES outputs are used by governments to inform policy development from the online survey conducted as part of this review (see Box 9).

It should be noted however that the scope of this review has not enabled a comprehensive review of the uptake to date at regional and national levels, and it is still early days for policy impacts to be clearly evident, especially for the most recent deliverables.

As noted earlier, the policy relevance for but not policy prescriptive principle may be an inherent weakness, at least in the way it is currently applied, leading to a dilution of the messages and an inability to address the questions of the policy options or evaluation of the effectiveness of policies. The SPM key messages are too general and not clear enough in suggesting actions available to national governments.

Besides, IPBES performs assessments and seeks to influence policy on issues that have a different degree of maturity across countries. Some countries (e.g. US, Switzerland) reported for instance as part of the survey for this review that they had completed their own pollination assessment at national level before IPBES released its own report. The European Union decided on a ban on neonicotinoids in 2018 following a report from the European Food Safety Agency confirming risks to bees after a first assessment in January 2013 that found “unacceptable” risks to bees from neonicotinoids and paved the way for the partial EU ban which was passed in April 2013⁴². In other countries, the pollination assessment has served for awareness raising on the issue.

Policy is not just created by governments. Private sector, and civil society organisations all generate policies in BES arena that IPBES can influence. This aspect of IPBES’ work can be significantly influenced by the right constellation of strategic partners.

Box 8: The Coalition of the Willing on Pollinators was established at the 13th meeting of the Conference of the Parties to the Convention on Biological Diversity (4-17 December 2016, Cancún, Mexico). It was initiated by the Government of the Netherlands, “inspired by the IPBES thematic assessment report on pollinators for food production”. Founding members also include Austria, Belgium, Denmark, Finland, Germany, Luxembourg, Peru, Slovenia, Spain, United Kingdom and Uruguay. At the end of 2018, it comprised 24 including the EU and BES-Net.

Members adhere to a declaration, that commits them to:

- take action to protect pollinators and their habitats by developing and implementing national pollinator strategies, consistent with the Intergovernmental Platform on Biodiversity and Ecosystem Services (IPBES) thematic assessment (pdf) on pollinators, pollination and food production;
- share experience and lessons learnt in developing and implementing national pollinator strategies, especially knowledge on new approaches, innovations and best practices;
- reach out to seek collaboration with a broad spectrum of stakeholders;
- develop research on pollinator conservation;
- mutual support and collaboration.

The coalition also works with the CBD and has potential to grow and develop. This is a clear and positive

⁴² <https://www.theguardian.com/environment/2018/feb/28/total-ban-on-bee-harming-pesticides-likely-after-major-new-eu-analysis>

There are multiple factors, including many within IPBES's sphere of control, that limit its influence on policy. They include:

- Lack of channels for IPBES message within the relevant government agencies, ministries (the role of NFPs in this regard varies greatly);
- Lack of policy expertise and practitioner expertise on assessments teams, the insufficient attention dedicated to policy questions and strategies for policy impact in the scoping phase,
- Insufficient inclusion of knowledge on policy options or evaluating the effectiveness of policies or instruments in assessments and their SPMs.
- Significant limitation of IPBES in terms of influence beyond the immediate biodiversity domain (evidence and perceptions of very limited reach to other sectors)

The measurement of impact of the science process upon policy development and implementation can be thought of as changing perspectives, building support or generating action (Posner et al. 2016). Given a stated goal of “strengthening knowledge foundations for better policy” (<https://www.ipbes.net/about>), measurement of impact through tracking integration of IPBES outcomes within various policy instruments of stakeholders, partners and national governments would give a first indication that IPBES output is resulting in changed policy outcomes. Impacts on informing policy or direct links to policy development would expect to be highlighted or called out with the scoping documents for each IPBES assessment. One measure of success will be the uptake of IPBES' message by key media and platforms that are recognised by policy-makers and key decision-makers from civil society and the private sector.

The tracking of actual policy impact (effectiveness) of outputs often lag substantially behind the production of the scientific product (citation). Given that only two IPBES assessments (pollination and pollinators and scenarios and modelling) have been available for more than two years, it is likely too early to measure true impact of assessment outputs.

7.3. Recommendations

Recommendation 31: Further improvements in communications could be achieved through more coverage on television and in other digital media, more placement of opinion pieces and more diversity among the IPBES spokespersons. In future communications exercises resulting from assessments and other IPBES products, the key “faces” should be the experts in the subject, who

Box 9: Examples of national-level policy uptake of IPBES work

There are also examples emerging of how IPBES outputs are used by governments to inform policy development from the online survey conducted as part of this review. They include: policy to reduce the use of chemicals in the cocoa sector (Ghana), to inform its CBD National Report and National Biodiversity Strategic Action Plan (Trinidad and Tobago, Mexico, Kenya, Morocco), policies on forestry in Peru, conservation of mangroves in India), EPA (Sweden), national biodiversity strategy (France, Bolivia), agriculture policy (Netherlands), awareness raising events on land degradation and regional assessment (Cameroon, South Africa for BRICS summit, Japan on impact of consumption globally) and pollination (debate on application of glyphosate to reduce impacts on pollinators in Estonia, day of pollinators in Mexico), change on the ground (reduction in mass spraying on farms in Ghana), reinforcing national studies leading to policy change on pollination policy in Switzerland, Spain, Norway, Colombia, France.

National biodiversity inventory, national ecosystem mapping (Hungary) and environmental outlook (South Africa), National platform on biodiversity and ES (Brazil), Management of protected areas (Jordan, Cameroon), Funding program (ex: BIOTA/FAPESP virtual institute of biodiversity), “Defra (UK) has used IPBES and its predecessor work to shape its adoption of the Ecosystem Services Framework for all policies on land use and biodiversity in England

often are best able to discuss results and to consider potential policy and biodiversity management implications, and, for the regional assessments, would have “local presence”.

This would emphasise the diversity of expertise in IPBES as well as giving voice the key actors. Contributions from the platform leadership is best used for more general media events, and strategic positioning in key policy fora. IPBES should also consider building in communication early on in the assessment process (e.g. lessons learnt from the IPCC’s experience and others may be useful).

Recommendation 32: IPBES needs to target its communication towards the primary goal of the Platform, which is to bring evidence to bear in decision-making and to ensure transformative change.

While IPBES has already made significant progress in tracking its impact in media and social media, the extent to which IPBES manages to reach its key target audiences should be further improved. Further, comments from the online survey suggest IPBES should consider putting more emphasis on communication both internal and external to IPBES.

Recommendation 33: IPBES needs to define its pathways to influence policy more systematically and more strategically, recognizing that resources are needed to complete these tasks satisfactorily and that there are partnerships that can be leveraged.

- a. At international level – partnerships, networks, synergies with other assessment processes (including on the SDGs), MEAs and UN agencies.
- b. Regional level – regional representatives have shown interest in IPBES by attending Plenary meetings (League of Arab States, EU, ASEAN)
- c. National level – more engagement with policy-makers and government representatives throughout assessment cycles through NFPs and other channels

This implies: (i) Assessing knowledge needs from IPBES’ key target audiences (with strong interest raised in the survey and interviews for this review on specific thematic issues, and methodological issues such as scenarios and alternative pathways, and methodological framework to support national assessment; (ii) Positioning IPBES in the broader science to policy system that involves functions of knowledge generation, knowledge synthesis and knowledge brokerage/scientific advice; supporting both the capacity to supply (which IPBES has well identified) but importantly also the demand for evidence and the capacity to use it for policy development (which is an issue that goes well beyond the remit of IPBES).

Recommendation 34: The Platform, in partnership with FAO, UNDP, UNEP, and UNESCO, should attempt to reach universal membership.

Recommendation 35: IPBES should put in place regular reviews and self-evaluations of its structures, processes and products, that from time-to-time seem in need of examination.

This is not suggesting a full review per biennium or other appropriate period, but rather regular and phased evaluation exercises. UNEP could perhaps also assist through specific evaluations from its internal oversight unit, given their independent status.

7.4 In summary: testing the Change Logic or ‘Theory of Change’ of IPBES

Finding 45. Partial testing of the change logic or “theory of change” of IPBES – that is, the logic on which its design and implementation have been based in order to effect the desired changes – has confirmed several weaknesses that have hindered or diminished the potential of IPBES to have a desirable long-term and sustainable impact. This increases the risk of slow progress or failure.

All initiatives are to some extent based on reasoned arguments or hypotheses about how change might happen in the short to long term in order to get to expected or desired impacts. Such a ‘change logic’ or ‘theory of change’ also underlies the design and implementation of IPBES. Any diagram representing such logic is by its very nature simplified, appears to be linear and predictable despite many feedback loops and uncertainties, and can be contested depending on stakeholders’ diverse perspectives and experiences. Nevertheless, it helps to focus attention on key issues for reflection, evaluation and action.

Based on statements and descriptions in IPBES documents as well as interviews with key individuals in the IPBES leadership, the review panel retrospectively captured in a first rough draft both the explicit and implicit components of the IPBES ‘theory of change’ to date (Figure 6 below). Although the review panel could not test the theory of change in a comprehensive manner, the findings highlight important preconditions for success that were not sufficiently in place⁴³, as well as several assumptions that were not valid or appropriate for the design and implementation of efforts aimed at enabling the necessary changes. This is especially important in IPBES’s ‘sphere of control’ – those changes or outcomes that are to a greater or lesser extent under the control of IPBES, or where IPBES has the greatest chance to effect or contribute to change in the short or even medium term. These outcomes tend to focus on changes in the type, quality, quantity, relevance and/or utility of outputs; and on changes in attitudes, mindsets, knowledge and capacities (as well as, to some extent, in behaviour). Here assumptions have to be appropriate and realistic if IPBES is to be effective on the science-policy interface. As the review panel findings indicate, several have been proven to be problematic,⁴⁴ bringing a sense of urgency to remedial efforts.

The theory of change also unpacks the ‘black box’ of changes or outcomes that might occur towards long-term impacts, including in IPBES’s ‘sphere of influence’ where its contributions might have made a traceable difference, yet for which it cannot be held accountable. Analysing the underlying logic towards impact provides opportunities to monitor key outcomes that might indicate progress, and to

⁴³ (Partially) unmet preconditions include sufficient, timely funding; sufficiently balanced, high quality expertise on gender; necessary disciplinary contributions; different knowledge systems and scientific pluralism or the ability to integrate between different disciplines or fields of work.

⁴⁴ Such assumptions include, among others, (i) that the four functions will be sufficiently implemented, and in a timely manner, to enable synergistic effects; (ii) that persons with sufficient and appropriate expertise will be nominated or volunteer to participate in IPBES initiatives; (iii) that a wide variety of stakeholders on the science-policy interface will be engaged appropriately and sufficiently early to help effect change; and that (iv) capacities will be available to ensure balanced representation in various dimensions.

identify positive and negative unintended consequences or outcomes that might affect success. Also here, as findings indicate, weaknesses in the assumptions made are likely to diminish the chance of desirable impacts.

Recommendation 36. During the next work programme, IPBES can strengthen its strategic design and implementation by reviewing, refreshing and/or making explicit the change logic or “theory of change” that underlies the design and implementation of IPBES. In order to support risk management, special attention has to be paid to the likely preconditions and key assumptions necessary for making progress towards and success in achieving the expected or desired impact.

This does not imply that change is entirely predictable, or that the theory of change provides a recipe for action or accountability. Instead, it can be used to enhance understanding and help alert stakeholders to potential challenges or success factors. It can also enable IPBES to identify and monitor emerging outcomes towards long-term impacts, and enable timely adjustments to strategies and actions, thus increasing the change of desirable impacts.

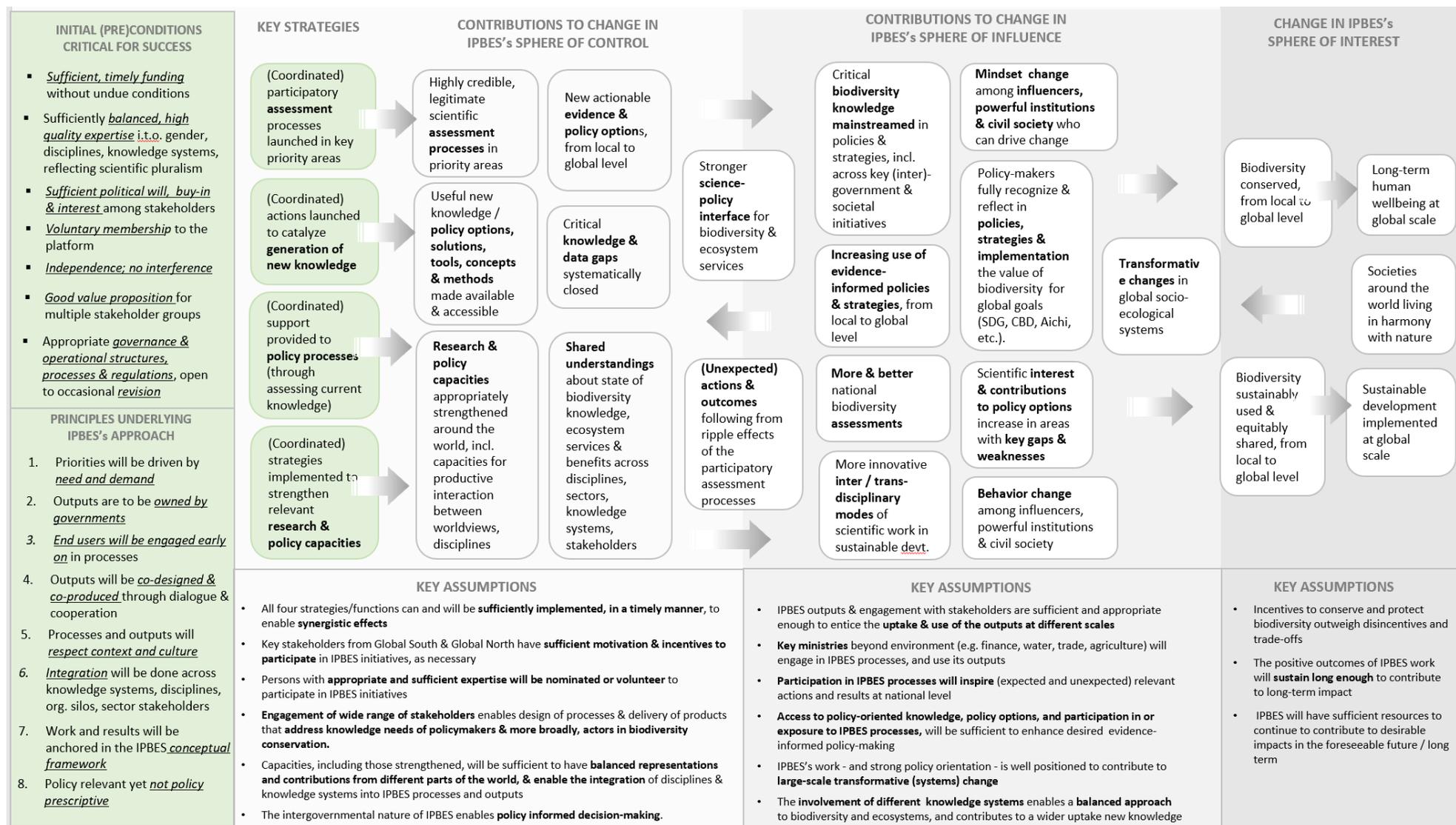


Figure 6: A first rough draft of the change logic or ‘theory of change’ of IPBES, as reconstructed by the review panel in consultation with key stakeholders.

7.5. The next Work Programme

Within IPBES, comparison with IPCC is often used - and has indeed served as a useful example - when it comes to arguing for the need for intergovernmental process to assess the state of knowledge on the issue of biodiversity, on incentivising the participation of experts in activities, and for setting up the platform (some of the governance arrangements, rules of procedure, practice in conducting assessments were inspired from the IPCC). However, even more so than climate change, biodiversity and ecosystem services are complex issues for an international body to address given their multifaceted and multi-scalar (global to local) nature. BES are affected by multiple direct and indirect drivers, there are no single metrics to measure change in biodiversity and ecosystem services, there are contrasted local situations, etc.

This setting should be a key frame for the creation of any future work programme, for which the Secretariat has put out several calls for contributions, especially through the NFPs. A wide range of suggestions has been produced, and some organisational ideas floated include making the work-programme open-ended (i.e. not a second but a continuously updated work programme). Another suggestion, which would have positive impacts on the budget include lengthening the interval between Plenaries to 18 months, partly foreshadowed in the document⁴⁵. The review panel is of the opinion that a more flexible approach to a work programme (i.e. a rolling, not time-limited) would fit better with the current resource constraints the plenary face. The timing of the discussions and the form a future work programme needs to take into account not only IPBES expectations and aspirations, but the “consumer” organisations timetables. For example, CBD will only finalise what they want to do for the period 2020-2030 at COP 15 in 2020. Thus, the full CBD needs may not be taken into a consideration in a future IPBES work programme, if that is decided too soon. This supports the view that a “rolling” approach to the work programme should be adopted, using adaptive management approaches to shape it as resources change, and stakeholder needs/expectations also change.

The Secretariat made available a draft idea for a work programme, building on this and comments from a wide group of stakeholders, many of whom enthusiastically mentioned their ambitions when being interviewed by the panel.

There were four prioritised topics, derived from three objectives:

1. *Synergies and tradeoffs (sic) between SDG 15 (life on land) and SDG 14 (life below water), and a subset of other SDGs: this subset would include food (SDG 2), water (SDG 3), health (SDG 6), and climate (SDG 13), and could also include energy (SDG 7).* This commendable aspect of cross-sectoral work is exactly the area IPBES must pursue to remain relevant in the changing international institutional landscape, and address biodiversity and ecosystem services working closely with partners in the broader context of sustainable development. This will require working in synergies and drawing on strengths of current and potential new partners to keep the task manageable and avoid duplication of efforts.
2. *Biodiversity and ecosystem services: status, drivers, trends, impacts, future scenarios, and response options at the regional and global levels.* This is the “bread and butter” of IPBES, but needs to always maintained at a fresh level and perspective.
3. *Pathways towards transformational change: behavioural, social, cultural, economic, institutional, technical and technological determinants of transformational change, and how these may be deployed to achieve the 2050 Vision for Biodiversity.* While this link to the CBD Strategic Plan is

⁴⁵ “Work programme of IPBES up to 2030 – draft for consultation”

helpful, IPBES must be able to maintain a distance from CBD perspectives and offer alternative future-oriented views if necessary. Socio-economic, political, behavioural and cultural drivers should also be fully incorporated in all assessments undertaken by IPBES, in line with the conceptual framework, and not be treated in isolation which this proposal may suggest, which means also aligning with the 2030 Agenda for Sustainable Development.

4. *Impact of productive sectors on biodiversity: potential positive and negative impacts of productive sectors on biodiversity and ecosystem services, and criteria, metrics and indicators of the impacts of productive sectors on biodiversity and ecosystem services.* As it reads, it is all-encompassing. Consideration to be more specific, e.g. reference to the private sector may help.

These led in turn to a range of deliverables under the objectives. This confusing set of hierarchies (objectives, topics, deliverable) underlines the panels conclusion that a vision, mission and strategic plan for IPBES needs urgent formulation. The very long list of deliverables, with an unlikely concomitant increase in financial resources, again reinforces the views of the Panel that plenary needs to reflect on what can be achieved with current levels of resourcing. It can also be read as leaning too far towards the science worldview and neglecting other knowledges.

Much of the programming work reported above has been done in parallel with that of the review Panel. This is an unfortunate disconnect, but it is hoped the review panel's conclusions and recommendations can help shape the Plenary's thoughts on constructing the next work programme from the rich feast of ideas generated from the call – recognising the review finding that resources should carefully determine programme, not the reverse.

8. CONCLUSION

The review concludes that IPBES has crafted internal and external relationships over the past few years and has put processes in place and successfully delivered on products. That said there are still weaknesses due to over-ambition in programme and under-ambition in resources, and challenges associated with the deliberate choice – though understandable in the start-up phase of IPBES - to focus on delivering a number of scientific products within a short timespan while the Platform has by design a bridging function.

Overall the Platform is well- positioned to contribute to global efforts to manage long-term changes in the current downward trajectory of biodiversity and the concomitant degradation of ecosystem service delivery. IPBES has an internal change logic that positions it well to assist policy-based agencies and governments manage these long-term changes to a better situation through transformative actions at many scales.

There is no doubt that biodiversity and ecosystem services, managed through policy responses at international and national levels, will be the poorer if a well-functioning IPBES is not part of the institutional landscape. This would also place improved human well-being and the pursuit of sustainable development at risk. IPBES remains a key element for success in achieving sustainable development – the Panel is of the view that if the shortcomings identified can be addressed the relevance and effectiveness of IPBES can only continue to strengthen.

The review Team commends the report to the Plenary for its consideration

LIST OF ACRONYMS

ASEAN: Association of Southeast Asian Nations	IPLC: Indigenous Peoples and Local Communities
BES: Biodiversity and Ecosystem Services	ISC: International Science Council
BLG: Biodiversity Liaison Group of Biodiversity-related Conventions	IUCN: International Union for Conservation of Nature
CBD: Convention on Biological Diversity	JLG: Joint Liaison Group of the Rio Conventions
CITES: Convention on International Trade in Endangered Species of Wild Fauna and Flora	MEA: Multilateral Environmental Agreement
CMS: Convention on the Conservation of Migratory Species of Wild Animals	MEP: Multidisciplinary Expert Panel
COP: Convention of the Parties	NCP: Nature's Contributions to People
CSAB: Chairs of Science Advisory Bodies of Biodiversity-related Conventions	NFP: National Focal Point
EU: European Union	ONET: Open Ended Stakeholder Network
FAO: Food and Agriculture Organization of the United Nations	RoP: Rules of Procedure
GBIF: Global Biodiversity Information Facility	SBSTTA: Subsidiary Body on Scientific, Technical and Technological Advice
GEF: Global Environment Facility	SDGs: Sustainable Development Goals
GEOBON: Group on Earth Observations Biodiversity Observation Network	SPI: Science Policy Interface
IAI: Inter-American Institute for Global Change Research	SPM: Summary for Policymakers
ICT: Information and Communications Technology	ToR: Terms of Reference
IIFBES: International Indigenous Forum on Biodiversity and Ecosystem Services	TSU: Technical Support Unit
ILK: Indigenous and Local Knowledge	UNCCD: United Nations Convention to Combat Desertification
IMS: Information Management Strategy	UNESCO: United Nations Educational, Scientific and Cultural Organization
INGSA: International Network for Government Science Advice	UNEP: United Nations Environment Programme
IPBES: Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services	UNDP: United Nations Development Programme
IPCC: Intergovernmental Panel on Climate Change	UNU-IAS: United Nations University Institute for the Advanced Study of Sustainability
	WEOG: Western European and Others Group
	WWF: World Wildlife Fund

LIST OF ANNEXES (PROVIDED IN A SUPPLEMENTARY REPORT)

1. List of acronyms
2. Terms of Reference for the Review of IPBES
3. List of interviews
4. Review matrix
5. Bibliometric Analysis
6. Media impact study
7. Online survey questionnaire
8. Online survey results (also available in a digital form with the IPBES secretariat)
9. The theory of change of IPBES
10. Bibliography

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