

Priority Setting Models for the New Science-Policy Panel on Chemicals, Waste and Pollution Prevention – Learning from IPCC and IPBES



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Key Findings

1. Both IPCC and IPBES separate prioritisation and scoping. Prioritisation means identification and selection of topics for reports; scoping means specifying a report's scope and outlining its content.
2. Both IPCC and IPBES employ procedures that respond to requests by governments, Multilateral Environmental Agreements, and various observers and stakeholders.
3. The procedures are demand-based and offer flexibility and make it possible to reconcile different political perspectives and scientific input.
4. Because a bias towards well-documented and data-rich issues of high visibility is possible in demand-based procedures, it will be important for the new SPP that the function of horizon scanning is connected with the prioritisation procedure.

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Overview: Similarities and Differences between IPCC and IPBES

Listed below are similarities and differences of prioritisation and scoping in IPCC (for so-called IPCC Special Reports) and IPBES (for the definition of the IPBES Work Programme). For details, see text.

IPCC Special Reports	IPBES Work Programme
Similarities	
Both processes are demand-based approaches that require the submission of requests from governments and eligible observers and stakeholders.	
The central element of the prioritisation process is the clustering of requests for reports by themes and the subsequent selection of priority topics.	
The plenary approves and initiates a bundle of reports that are to be prepared by nominated experts.	
Differences	
Governments and observer organisations are eligible to make proposals for Special Reports.	Governments and Multilateral Environmental Agreements are eligible to make requests for reports. Other stakeholders are invited to submit inputs and suggestions .
Prioritisation activities are carried out by the IPCC Bureau , having administrative and scientific functions.	Prioritisation activities are carried out by the Multidisciplinary Expert Panel (scientific functions) in conjunction with the Bureau (administrative functions).
IPCC scoping serves the function of developing an outline and is carried out after a report is initiated by the plenary.	IPBES scoping is carried out before the initiation of reports by the plenary. After detailed scoping, the plenary decides to initiate, postpone, reject a report or ask for further scoping.

1 Introduction

In its resolution 5/8, the United Nations Environment Assembly (UNEA) agreed on establishing an independent, intergovernmental science-policy panel on chemicals, waste and pollution prevention (hereafter “SPP”). From 11–15 December 2023, the second session of the ad-hoc Open-Ended Working Group (OEWG-2) will take place in Nairobi, Kenya. Previous sessions focused on the SPP’s scope and principal functions. At the upcoming session, important questions about priority setting and the definition of the SPP’s work programme will be addressed.

Here, we look at two existing intergovernmental panels, the Intergovernmental Panel on Climate Change (IPCC) and the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES), and how these two bodies define their work programmes and the scope of their reports. Generally, member states and observer organisations make requests for topics to be covered, and the intergovernmental panels apply established mechanisms for handling these requests. These may be useful models to be considered in the process of setting up the new SPP. We characterise and compare the different mechanisms and point out some of their strengths and limitations. On this basis, we offer recommendations for the prioritisation procedure for assessments by the new SPP.

2 Prioritisation Procedures of IPCC and IPBES

To optimise the utilisation of their limited resources, the IPCC and IPBES must strategically choose the most relevant topics from a range of options. Both organisations have implemented prioritisation procedures to facilitate this process. In the following, we will outline the activities related to prioritisation leading up to the final decision made in the plenary.

2.1 IPCC Prioritisation

During a single Assessment Cycle, the IPCC prepares multiple Special Reports (SRs) on specific topics based on proposals from governments and observer organisations. Special Reports are agreed upon by a well-defined prioritisation mechanism for assessing and managing these proposals¹. Other types of IPCC reports directly enter the scoping process (see below) without previous evaluation of options, which is why we focus on the Special Reports framework in this section.

The prioritisation process starts with the IPCC Secretariat inviting member states and IPCC observer organisations to submit proposals for Special Reports for the upcoming Assessment Cycle². Upon receiving these proposals, the Secretariat clusters them by themes and compiles a document that synthesises the individual proposals and presents clusters of related proposals³. Following this, the Co-Chairs of the Working Groups (WGs), who are members of the Bureau, receive the document. They then prepare a commentary on each proposal and a separate commentary on the clusters of proposals^{4,5}. These commentaries from the Co-Chairs address a set of guiding questions, e.g., whether the topic is relevant for more than one Working Group or whether there were gaps on this topic in previous Assessment Reports (a list of all guiding criteria is provided in the appendix). In the next step, the IPCC Chair sends out a letter to selected international organisations seeking information regarding potential workshops and reports or other products they may plan to develop in connection with any of the proposals for Special

Reports. Taking into account the responses to the letter and the commentaries provided by the Co-Chairs, the Bureau then decides on priority topics and offers recommendations to guide the plenary's decision. Finally, the plenary decides which Special Reports to prepare. Once approved by the plenary, this initiates a series of Special Reports, each of which then enters the scoping process⁶, see below. Figure 1 provides a schematic illustration of the prioritisation mechanism for IPCC Special Reports.

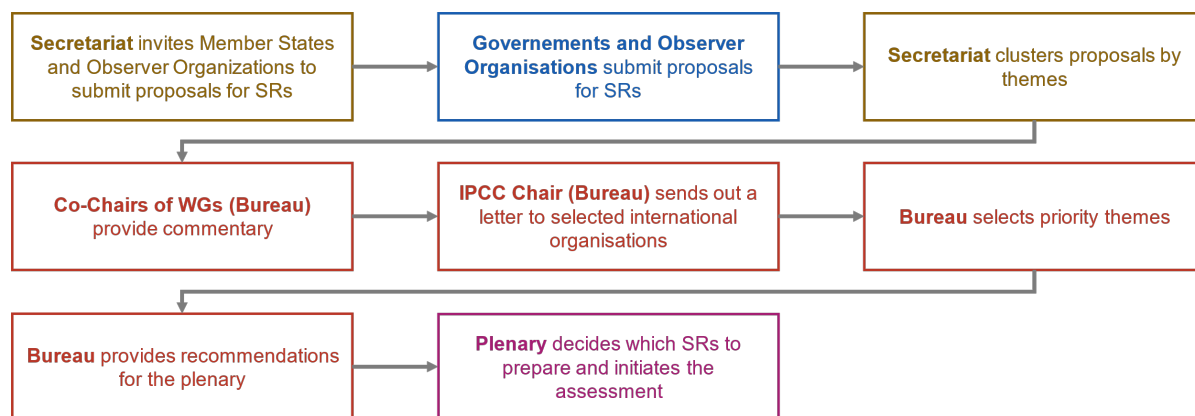


Figure 1: Schematic illustration of the IPCC prioritisation procedure.

2.2 IPBES Prioritisation

The IPBES prioritises the topics for its reports during the process of developing a new Work Programme⁷. The IPBES Work Programme is analogous to the IPCC Assessment Cycle and describes all activities the platform plans to carry out over a predefined period of time. The Work Programme consists of **deliverables** that are grouped by **priority topics** and subgrouped by **objectives**, see Figure 2. Deliverables refer to all forms of output prepared during a Work Programme. Priority topics relate to real-world issues, while objectives are conceptual and relate to the four functions of the IPBES and other aims the IPBES may set for its Work Programme⁸. Objectives ensure that the platforms' work addresses its functions and aims in a balanced manner. Accordingly, deliverables always address one of the priority topics while contributing to one of the objectives. There are different subsets of deliverables that contribute to different objectives⁹. The main type of deliverables are Reports, including Assessment Reports, Synthesis Reports and Technical Papers. Reports are exclusively associated with "Objective 1: Assessing Knowledge". Other deliverables, so-called Supporting Materials, contribute to the other objectives and include software, databases and other guidance materials that facilitate the preparation of reports. Note that developing a new Work Programme involves prioritising all deliverables, not just Reports under Objective 1. However, here we focus on Reports as the platform's main deliverables.

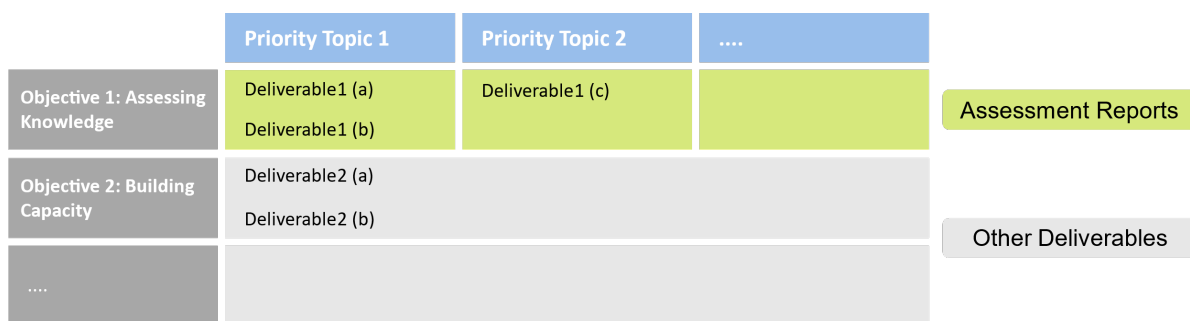


Figure 2: Illustration of the IPBES Work Programme⁷ with Priority Topics, Objectives and Deliverables as main elements.

The prioritisation process starts with the Secretariat issuing a formal call for requests, inputs and suggestions. Governments and Multilateral Environmental Agreements (MEAs) are then eligible to make **requests** for Reports^{10,11}. Other stakeholders related to biodiversity and ecosystem services can make **inputs** and **suggestions**¹⁰. The prioritisation activities are undertaken through a collaborative effort involving the Multidisciplinary Expert Panel (MEP) and the Bureau, with assistance from the Secretariat. The MEP, an IPBES committee, plays a pivotal role by overseeing various scientific and technical functions¹². Comprised of 30 scientific experts, it maintains equal representation from the five UN regions. Meanwhile, the Bureau focuses on administrative functions. In conjunction with the Bureau, the MEP groups the submissions into broad topics and subgroup them according to the Work Programme objectives¹³. Then, the MEP and the Bureau identify priority topics within these broader categories. The prioritisation is guided by ten prioritisation criteria, including the urgency of action, geographic scope and availability of scientific literature (see appendix). The MEP also considers the 2030 agenda, including the Sustainable Development Goals, biodiversity-related conventions and other biodiversity and ecosystem processes. The MEP and the Bureau provide a written explanation of the decision for each priority topic. Next, the MEP and the Bureau prioritise the individual deliverables specified by objectives. The prioritisation outcomes are compiled in a prioritised list of requests for consideration by the plenary. In consultation with the Bureau, the MEP prepares so-called initial scoping reports for each potential assessment, serving as a priority and feasibility check. The IPBES Work Programme is a rolling work programme, with the option of including further priority topics and Assessment Reports after a second and third call for requests, resulting in iterations of the procedures described above. Figure 3 illustrates the procedure.

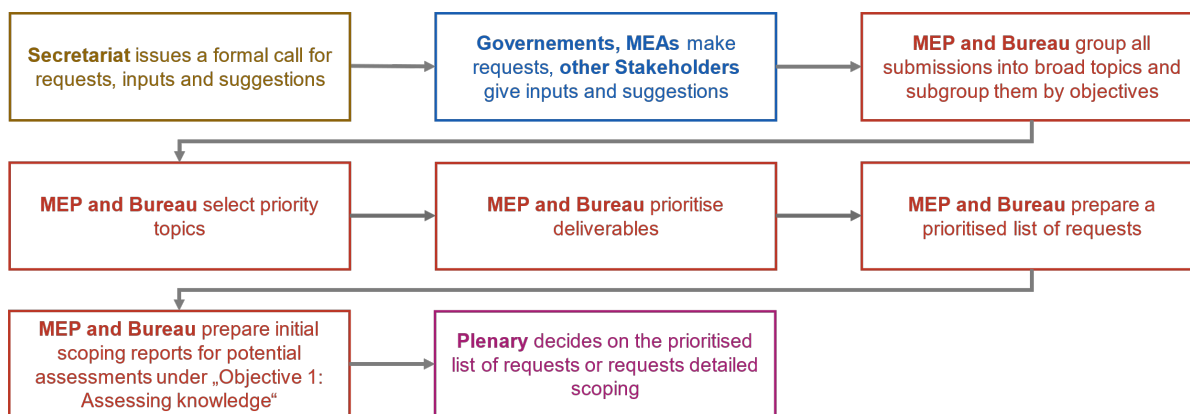


Figure 3: Schematic illustration of the IPBES prioritisation procedure.

3 Scoping in IPCC and IPBES

After identifying the priorities, the selected reports proceed to a scoping process. The scoping process primarily focuses on determining a report's specific content and outline.

3.1 IPCC Scoping

IPCC scoping precedes every type of IPCC Report and is carried out after the plenary's approval. Scoping serves the primary function of developing a report outline¹⁴. The process starts with a pre-scoping questionnaire for governments and observer organisations. The scoping meeting then develops an outline for the contribution of each Working Group, with separate scoping meetings for the different Working Groups. The scoping meeting comprises scientific experts nominated by governments, observer organisations, and IPCC Bureau members. Participants of the scoping meeting must fulfil criteria of expertise in the context of the respective Working Group. Ultimately, the plenary has to approve the draft outline.

3.2 IPBES Scoping

Unlike IPCC scoping, IPBES scoping is carried out **before** the initiation of reports by the plenary¹⁵. When deciding, the plenary can either approve the prioritised list of reports or request detailed scoping. In most cases, the plenary requests a detailed scoping, which is similar to the IPCC scoping process. It involves the nomination of experts and a review and commenting phase. The content of the detailed scoping touches upon questions concerning chapter outlines, methodological approaches and the operational structure, among others. Ultimately, the plenary may (1) approve the detailed scoping and initiate the assessment, (2) approve the detailed scoping but delay the undertaking of the assessment, (3) not approve the detailed scoping and request further scoping, or (4) not approve the assessment at all. Note that the definitive outline is prepared at the subsequent stage of the assessment process, i.e. after initiation of the report.

4 Comparison of the IPCC and IPBES Procedures

Overall, both panels employ similar procedures for prioritisation. Both processes are demand-based and require the submission of requests for assessment by governments and other eligible stakeholders^{2,11}. In both cases, the prioritisation process involves the clustering or grouping of requests by themes and the subsequent selection of priority topics. Prioritisation outcomes are summarised in an official document to advise the plenary decision. Both procedures end with the approval and initiation of a bundle of reports that are to be prepared by nominated experts over the course of a pre-defined time period (IPCC Assessment Cycle or IPBES Work Programme)

Differences between the two science-policy platforms are apparent in the individual steps. While the IPCC prioritisation is an isolated process only used for Special Reports under the AR6 Assessment Cycle, the IPBES prioritisation applies to all deliverables of a new Work Programme. Moreover, the IPCC prioritisation is solely carried out by the IPCC Bureau. IPBES, in contrast, strongly relies on the Multidisciplinary Expert Panel, which has the task of prioritising the requests and works in conjunction with the IPBES Bureau.

Both intergovernmental bodies use scoping to identify a report's scientific extent and content but have different understandings of its function. For the IPCC, scoping serves the sole purpose of developing an outline and takes place after the report has been approved and initiated. For the IPBES, scoping serves as a decision-making mechanism meant to advise the plenary decision on the prioritised list of requests for reports. In the case of clear initial scoping results, the plenary can directly approve and initiate a report via a fast-track procedure. More often, however, the plenary will request detailed scoping, which is an opportunity to obtain increased stakeholder engagement before the plenary approval of a report. The IPBES scoping later serves as a basis for the development of the annotated outline.

5 Key Aspects, Strengths and Limitations of IPCC and IPBES Procedures

For both intergovernmental science-policy platforms, ownership by member states throughout the process of preparing reports is important to assure the **policy relevance** and acceptance of the platform products. The IPBES and IPCC prioritisation procedures reflect this concept primarily through the plenary approval sessions where reports are initiated. Because of the reports' implications for international environmental politics, approval sessions resemble negotiation processes, resulting in prioritisation outcomes that reconcile member states' interests and scientific assessments.

Prioritisation is **not a linear science-to-policy relationship**. The IPCC and IPBES procedures need to be seen in the context of international power structures and related inter-governmental institutions. The economic capacities of nations to contribute to IPCC and IPBES vary widely. These global asymmetries shape the platforms' intergovernmental character and may influence their prioritisation outcomes. In the case of the SR15 report on the impacts of global warming of 1.5°C, the IPCC answered a direct request by the United Nations Framework Convention on Climate Change (UNFCCC) in the context of the Paris Agreement. This is an example of how the policy landscape may contribute to the prioritisation process and exemplifies the IPCC's intention to produce policy-relevant products. Overall, prioritisation and scoping procedures in international environmental policy benefit from being simple, flexible, transparent and efficient, as suggested by the OECD¹⁶.

From a member state perspective, **demand-based approaches** are important to ensure the policy relevance of reports. However, demand-based approaches may also result in biases in the assessments. For instance, prioritisation procedures might de-prioritise requests that lack sufficient data. Moreover, demand-based approaches may lead to a bias towards well-known issues that can be sufficiently characterised by the body making the request for assessment.

6 Recommendations

Prioritisation and scoping. The two-step approach of (i) prioritisation of topics for a work programme of a couple of years and (ii) scoping of the reports and possible other deliverables agreed on in the prioritisation step is a suitable model for the SPP. It organises the decisions to be made in a useful sequence and offers sufficient flexibility.

Handling of incomplete data. The chemicals and waste area is characterised by specific challenges that need to be taken into account in the prioritisation procedure. These include the large number and great diversity of chemicals on the market and a pronounced inequality in terms of data availability and data quality, both geographically and across chemicals. In this situation, two elements are of utmost importance: (i) In the search for more and better data on a certain issue, the SPP should avoid lengthy and inconclusive “paralysis by analysis”. (ii) On the other hand, a lack of data should not lead to the conclusion that an issue does not matter, i.e. here it is the conclusion “absence of evidence indicates evidence of absence” that needs to be avoided. Therefore, the SPP needs a mechanism that leads to a balance of, on the one hand, conclusions that can be drawn on the basis of the available data, also by suitable inter- and extrapolations (spatially, temporally, across chemicals, across species, etc.), and, on the other hand, acknowledgement of the possibility that the understanding of a hazard or impact may be incomplete and will be improved by new findings. The incorporation of new findings into future assessments should be supported by the function of horizon scanning, and this function of horizon scanning should be connected with the SPP’s prioritisation procedure.

Broad basis for inclusion of issues. The prioritisation of issues for assessments should use a broad basis including information on hazards, risks and impacts. A focus predominantly on impacts would be too narrow. Impacts of chemicals, waste and pollution are numerous and varied and cause big burdens for society, but the available data and knowledge vary vastly for different impacts. Some impacts are well researched and documented, others much less, but may be as important as the well-known ones. Prioritisation needs to be based on extensive information about uses, hazards, risks and impacts in a balanced way. In some cases, hazards such as certain types of toxicity or endocrine activity are proxies for impacts and may well serve as a basis for prioritisation. The SPP may initiate assessments of impacts and their associated costs. This type of assessment should, in particular, focus on impacts that are not yet well documented so that the available knowledge can be documented along with current gaps in understanding, needs for better documentation, and calls for more research. One goal of the SPP's work should be to support a better understanding of under-researched impacts of chemicals, waste and pollution.

Appendix

Table A1: IPCC guidance for the Co-Chairs' commentaries and IPBES prioritisation criteria.

IPCC guidance for the Co-Chair commentaries^{4,5}	IPBES Prioritisation Criteria¹⁷
<p>Co-Chair commentaries address the questions:</p> <ol style="list-style-type: none"> 1. Is the Topic relevant for more than one WG? 2. Were there gaps in AR5 (Assessment Report 5) on these topics? 3. Is the topic different from what is reported elsewhere? 4. Are there sufficient new scientific findings that motivate a specific focus on this topic? 5. Implications for AR6? 	<p>Submissions should include information on:</p> <ol style="list-style-type: none"> 1. Relevance to the objective, functions and Work Programme of the Platform; 2. Urgency of action by the Platform in the light of the imminence of the risks caused by the issues to be addressed by such action; 3. Relevance of the requested action in addressing specific policies or processes; 4. Geographic scope of the requested action, as well as issues to be covered by such action; 5. Anticipated level of complexity of the issues to be addressed by the requested action; 6. Previous work and existing initiatives of a similar nature and evidence of remaining gaps, such as the absence or limited availability of information and tools to address the issues, and reasons why the Platform is best suited to take action; 7. Availability of scientific literature and expertise for the Platform to undertake the requested action; 8. Scale of the potential impacts and potential beneficiaries of the requested action; 9. Requirements for financial and human resources and potential duration of the requested action; 10. An identification of priorities within multiple requests submitted.

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