

Strengthening the Science-Policy Interface in International Chemicals Governance: A Thought Starter on Options for a Way Forward

1. Building on the first draft of the *Mapping and Gap Analysis*, this Thought Starter summarizes some initial ideas on options for a way forward to strengthen the science-policy interface in international chemicals governance. It is intended to stimulate thinking and discussion at the multi-stakeholder workshop on 15–16 November 2018 in Geneva, Switzerland. In light of the discussions and feedback received from stakeholders during and after the workshop, the ideas presented in this document will be further developed and then feed into the *Mapping and Gap Analysis* and ongoing discussion on strengthening the science-policy interface in international chemicals governance.
2. Strong science-policy interactions are mutually beneficial for the scientific and policy community and foster co-production of science and policy. For example, exploratory research can be expanded and properly prioritized to inform and support policy needs. Similarly, a policy can be strengthened if needed scientific evidence is generated.
 - ✓ The importance of a strong science-policy interface is widely acknowledged throughout the UN system and regularly mentioned in high-level documents and decisions taken by the governing bodies of intergovernmental organizations (e.g., Paragraph 88 of the outcome document “The Future We Want” of the United Nations Conference on Environment and Development, and the United Nations Environment Assembly Resolution 1/4 on Science-Policy Interface).
 - ✓ The same recognition of a strong science-policy interface can also be found in international chemicals and waste governance, including the decision “From Science to Action” adopted by the Conferences of the Parties to the Basel, Rotterdam and Stockholm Conventions (BC-12/22, RC-7/12, SC-7/30), and as built-in objectives (Paragraph 14, 15) in the Overarching Policy Strategy of the UN Strategic Approach to International Chemicals Management (SAICM).
3. Currently, an international discussion on strengthening the science-policy interface in international chemicals and waste governance is taking place within and outside of the Intersessional Process on the sound management of chemicals and waste beyond 2020.
 - ✓ At the second meeting of the Intersessional Process (SAICM/IP.2/11), “many participants stressed the need to integrate science in the beyond 2020 framework and to increase the science-policy interface and engage academia in activities related to sound management of chemicals and waste. It was noted that the effects of chemicals and waste mismanagement must be appreciated by government officials and a good way to achieve that was by raising the profile of the science-policy interface.”
 - ✓ This is supported by a recent survey by the BRS Convention Secretariat, which suggested that “an improved science-policy interface could facilitate the decision-making in the BRS Conventions and support their effective implementation” (UNEP/POPS/POPRC.14/INF/11).
 - ✓ While expressing broad support for a strong science-policy interface, multiple stakeholders have also expressed their concern regarding how to strengthen the interface, particularly with regard to (1) that duplicating efforts by the many interface bodies under the MEAs and by the various intergovernmental/international organizations should be avoided and (2) costs.
 - ✓ However, throughout the ongoing discussions, there has been no clear common understanding of the desired overall objectives of the science-policy interface in international chemicals governance, and how existing interface bodies already cover these objectives. To foster productive discussion, the International Panel on Chemical Pollution (IPCP) is currently conducting a mapping and gap analysis of the existing science-policy interface.

4. In the first draft of the mapping and gap analysis, the following findings were identified:
- ✓ **Mapping:** A wide range of science-policy interface bodies of varying types, sizes and purposes already exist on the global, cross-regional, regional, national and local levels. Many are established under a legally-binding instrument with specific mandates to assist the implementation of such instruments, whereas others are established by an organization on a legally-binding or non-legally-binding basis with varied mandates. These bodies have, to a certain extent, supported decision- and policy-making, raised awareness of chemicals, and assisted in the implementation of actions on different aspects.
 - ✓ **Scope:** No individual interface body covers all aspects of international chemicals and waste governance. However, existing bodies on the global and cross-regional level together do cover a broad range of chemicals along different stages of the chemical life cycle and their impacts on both the environment and human health. In addition, some interface bodies also address generic chemical management issues that may be applicable to a larger set of chemicals than they themselves cover, whereas others do not. In general, interface bodies under or associated with MEAs have specific scopes and focus on a limited set of chemicals and only part of the chemical life cycle in some cases. In contrast, the mandates of many interface bodies with no direct association with MEAs are flexible and can theoretically cover any chemicals and any generic chemical management issues, subject to the body's (or its host/sponsoring organization's) thematic domain, resources and capacities.
 - ✓ **Interaction between science and policy:** The work areas of existing science-policy interface bodies vary considerably. The majority of the considered interface bodies focus on providing scientific support to policymakers, particularly with regard to scientific assessment of issues of concern (including identification of issues with emerging evidence of concern in some cases). However, there are gaps in, e.g., providing scientific support in monitoring and evaluating progress and continued difficulties in ensuring timely scientific advice on issues with emerging evidence of concern. Furthermore, there is a relative lack of interface bodies that work toward ensuring two-way interaction between science and policy, particularly ensuring effective communication of policymakers' needs back to the scientific community. As a result, scientists and policy-makers are not always best informed of developments and needs in the other sphere. This leads to missed opportunities for synergies and joint development of strategies and issues not being addressed in the most effective manner.
 - ✓ **Needs of and circumstances within developing and transition countries:** The studied interface bodies present a range of different rules and procedures for ensuring that the needs of and circumstances within developing and transition countries are taken into account, mostly through measures to support the participation of developing and transition countries in relevant processes. Exchange and mutual learning among interface bodies may help to strengthen procedures, enhance representation, and ensure that needs of developing and transition countries are adequately met across different interface bodies.
 - ✓ **Coordinated approach and knowledge sharing:** Several mechanisms exist to improve the coordination of the wide ranging science-policy interface bodies under the MEAs (e.g. the synergy process under the BRS Conventions) and by intergovernmental organizations (e.g. IOMC). However, there is still significant room to build on existing experiences and achieve better coordination between and across global, cross-regional, regional and national interface bodies. Similarly, although an extensive knowledge base exists within each of the many interface bodies, a centralized platform across interface bodies for sharing frameworks, methodologies, processes, and knowledge (e.g. lessons learned) is missing, and this may be beneficial to respond to the complex nature of chemical management issues.

5. Based on these findings, there is room for improving and strengthening the current science-policy interface in international chemicals and waste governance, at least in regards to the scope, work areas, needs of and circumstances within developing and transition countries, and coordinated approach and knowledge sharing. Furthermore, barriers and challenges in engaging the scientific community at the science-policy interface remain (as also outlined in the Global Chemicals Outlook II) and need to be continuously addressed by interface bodies and others, in order to ensure effective and efficient science-policy interactions. Table 1 summarizes some of the major barriers and challenges.

Table 1. Barriers/challenges in engaging the scientific community at the science-policy interface

Intrinsic Factors (not changeable, but can be mediated by interface bodies)	Different goals/objectives: Scientific research focuses on open, cutting-edge questions, whereas policy often requires synthesis of existing knowledge.
	Different approaches to an issue: Scientists follow a deconstructed approach, zooming into many specific (sub-)aspects, whereas policy-makers require an integrative approach and look rather at the big picture of an issue. As chemicals issues are often increasingly complex, more disciplines need to be involved in understanding a particular issue. In turn, increasing efforts are needed to assess progress and coordinate scientific development of an issue across disciplines. Currently, there is often limited or no mechanism to ensure such coordination and synthesis of existing knowledge. Furthermore, academic scientists focus on developing novel methods and concepts to address an issue, whereas policymakers prefer using known, standardized methods.
	Different time frames: Windows of opportunity for scientific input in policy-making tend to be short and appear suddenly, whereas research requires (much) longer timeframes to organize funding and then conduct the research itself. In addition, the amount of time that elapses between the initial identification of the problem by scientists and its inclusion in a policy discussion may be considerable. When it finally becomes a policy relevant issue, it may no longer be interesting for the scientific community.
	Different languages: Scientists publish their findings in specialized journals targeting expert audiences in the same field. These may have different emphases and level of detail than needed by policymakers.
Extrinsic Factors (changeable factors and some can be mediated by interface bodies)	Different incentives: Academia is heavily influenced by the need for timely recognition of research outcomes through cited publications and journal rankings such as H-index and impact factors. Since results of public and policy engagement can be slow in coming to fruition, this makes it often difficult for scientists to gain the needed, timely recognition of their individual research contributions to the final policy outcome. Furthermore, funding agencies most often provide scientists funding for the development of innovative/novel methods, but not for their work in synthesizing scientific knowledge (with exceptions in some cases).
	Different culture/value perception: Some believe that scientists should not be engaged in policy processes to keep science independent and objective.
	A lack of awareness and training: Scientists may not be aware of policy-needs and may not be trained to properly communicate their scientific research to a non-expert policy audience or engage in policy processes.
	Challenges in information access: Most scientific journals require substantial subscription fees, which creates a barrier for most people to access scientific information. In addition, some information in relevant policy processes can be claimed as confidential business information and is sealed from the public. In such cases, academic scientists may not have essential information needed to initiate or develop their research.
	Challenges in communication channels: Given a large number of parallel policy processes, it is difficult for scientists to keep up-to-date with multiple and diverse policy needs. This is the same for policy makers trying to read through and make sense of the hundreds of thousands of research articles published every year.

6. Building on these considerations, three options for a way forward to strengthen the science-policy interface in international chemicals governance are outlined in Table 2.

Table 2. Potential options for the way forward to strengthen the science-policy interface in international chemicals and waste governance.

Options	Initial thoughts	Pros and cons	Further details to be considered
1. Establish a dedicated intergovernmental panel/working group	IPCC/IPBES/IRP could be used as a model for establishing a dedicated intergovernmental science-policy panel/working group on chemicals and waste.	<p>Pros: It will raise the profile of the science-policy interface and international chemicals and waste governance to the highest political levels. Very authoritative.</p> <p>Cons: The costs. Different issues may require different expertise, while the panel composition could be inflexible to address such complexity and versatility.</p>	<ul style="list-style-type: none"> ➤ The source of mandates ➤ The outputs of the panel ➤ The owner of the outputs ➤ The composition of the panel (including rules and procedures to avoid conflicts of interest and ensure credibility) ➤ How to engage a broader range of scientists and provide relevant incentives (particularly for academic scientists) ➤ etc.
2. Establish/expand existing science-policy bodies into a “network of networks”	<p>GESAMP could be used as a model to establish/expand existing interface bodies into a “network of networks” (more details can be found in the previous thought starter prepared by the IPCP during the 2nd meeting of the Intersessional Process; see the Annex):</p> <ul style="list-style-type: none"> ✓ A central hub would connect, coordinate and promote knowledge sharing across existing interface bodies, policymakers and scientists. Using its networks, the central hub would ease and ensure two-way interactions between science and policy. ✓ Based on the needs, <i>ad hoc</i> working groups can be set up by the central hub to carry out individual studies and requested assessments. These working groups would be made up of leading global experts who are not members of the hub itself. This would allow working group expertise to be tailored to specific projects. 	<p>Pros: The network of networks can be coordinated by a lean, central hub and would therefore be agile and flexible. This “may improve the willingness of organizations, networks and individual scientists to participate and to cooperate within the network...” (Görg et al., 2016, Biodivers Conserv).</p> <p>Cons: At the initial stage, the network would need some time (e.g., 1–2 years) to be extensive to ensure balanced representation. In addition, “Knowledge holder organisations need to be committed to working at the interface, a task not necessarily in their mandate and often difficult to achieve” (Görg et al., 2016, Biodivers Conserv).</p>	<ul style="list-style-type: none"> ➤ The source of mandates ➤ The outputs of the network ➤ The owner of the outputs ➤ The structure of the network (including rules and procedures to avoid conflicts of interest and ensure credibility) ➤ etc.

<p>3. Expand the mandate of the IOMC organizations</p>	<p>The mandates of and certain activities within the IOMC organizations could be expanded and formalized. For example:</p> <ul style="list-style-type: none"> ✓ The Global Chemicals Outlook and Global Waste Outlook could be formalized as a regular process to bring scientific knowledge into the policy context. ✓ The WHO Environmental Health Criteria (EHC) documents and Concise International Chemical Assessment Documents (CICADs) could be formalized as a regular process to translate policy needs into relevant scientific questions and coordinate cooperative research efforts across all relevant disciplines ensuring that the “big picture” is in place. ✓ The International Conference on Mercury as a Global Pollutant could be an example of a regular process to coordinate and foster dialogue between scientists and policymakers with regard to the needs of each side and encourage cooperative action for the co-development of science and policy. 	<p>Pros: Flexible mandates of the IOMC organizations can be extended to cover all chemicals and related issues. Extensive network, experience and lessons learned already exist.</p> <p>Cons: As individual IOMC organizations focus on different thematic domains, strong coordination across organizations and their governing bodies is continuously needed. As intergovernmental organizations, the IOMC organizations may focus more on the policy needs than on the science needs.</p>	<ul style="list-style-type: none"> ➤ The mandates and outputs to be formalized, and how to regularize them ➤ How to engage a broader range of scientists and provide relevant incentives (particularly for academic scientists) ➤ How to ensure coordination ➤ etc.
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Annex:**A Thought Starter on A Possible Model
for the Science-Policy Interface under the Post 2020 Framework**

(This document has been taken directly without editing of content from:

http://www.saicm.org/Portals/12/documents/meetings/IP2/A%20Thought%20%20Starter%20on%20a%20Possible%20Model%20for%20the%20Science_draft_15March2018_updated.pdf)

1. This note is a work-in-progress document. It summarises some preliminary ideas and input on a possible model for the science-policy interface under the Post 2020 Framework. It is intended to stimulate thinking and feed into the discussions on science-policy interface for the intersessional process considering the sound management of chemicals and waste beyond 2020. Furthermore, it is a living document, which may be further developed in light of the discussions and the views expressed by other stakeholders.
2. During some of the Regional Meetings and the second meeting of the Intersessional Process, a number of stakeholders from intergovernmental organisations, national governments and non-governmental organisations have voiced the needs of a strengthened science-policy interface under the Post 2020 Framework.
3. Given the diversity and complexity of issues on chemicals (and waste), academic expertise in different disciplines and sub-disciplines are needed for different issues. Hence, this thought starter intends to propose a model with a lean institutional setting and a flexible, network approach that may utilize existing global network of academic scientists in all relevant disciplines (see Figure A1) to fill in the gaps of existing science-policy interface in the field of chemicals and waste management while avoiding duplicated efforts by, e.g., the POPs Review Committee of the Stockholm Convention, the Chemical Review Committee of the Basel Convention, and the IOMC organisations.
4. A proposed model will use a core team of 3–6 coordinators to reach out, maintain, expand and mobilise the wider academic community (scientific experts from all relevant fields will be engaged and involved on an *ad hoc* basis) for its work. In brief, upon specific request from the relevant bodies, the coordinators will establish an *ad hoc* working group by gathering academic experts from all relevant disciplines and from all relevant regions, as well as relevant experts from other stakeholders and sectors, and coordinate the development of relevant scientific outputs by the *ad hoc* expert group as requested. The core team's work programmes and expenditures will be overseen by a steering committee (e.g., consisting of representatives from regions).
5. A proposed model may conduct its work in the following three key areas, which are subject to the requests by the relevant bodies and can include (among others) the ability to:
 - a. From Science to Policy: Upon request by the relevant bodies, provide relevant scientific assessments on specific issues (e.g., supporting developing countries and countries with economies in transition in developing proposals of issues of concern, supporting policy implementation, supporting efforts in capturing issues with emerging evidence of concern and inform policymakers).
 - b. From Policy to Science: inform scientists about policy developments so as to enable them to understand policy needs, set proper research priorities, and generate targeted scientific knowledge in a proper format to support further policy development; coordinate scientific inputs in a synthesized and ready to be used format for specific policy calls.
 - c. Between Science and Policy: facilitate science-policy dialogue to support the development of joint strategies of science and policy on specific issues, information dissemination, knowledge management, and capacity building (e.g., winter/summer schools and training workshops).

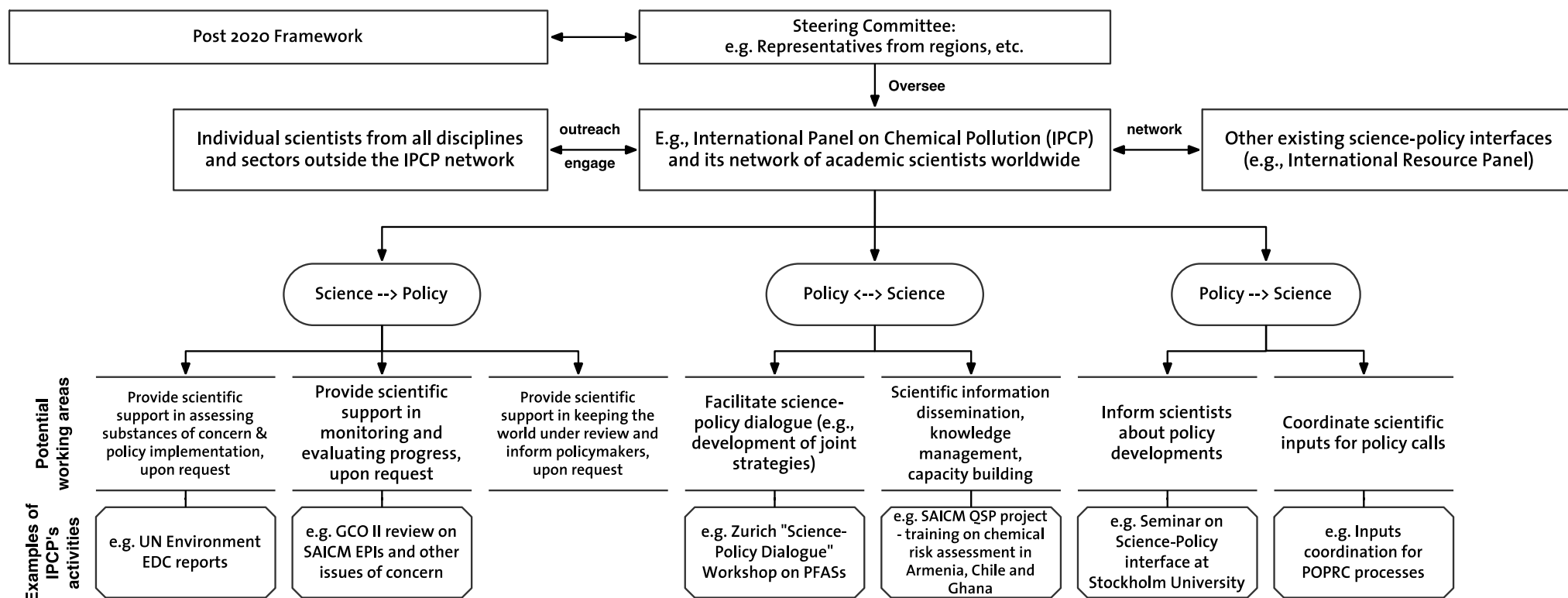


Figure A1. Overview of a proposed model for the science-policy interface under the Post 2020 Framework, including potential key working areas, main functions, and some existing examples of activities by the International Panel on Chemical Pollution in these areas.