

A Call to Action: Engaging with the Intergovernmental Science-Policy Panel on Chemicals, Waste and Pollution

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An important milestone was passed in June 2025 when the new Intergovernmental Science-Policy Panel on Chemicals, Waste and Pollution (ISP-CWP) was established. Hosted by the United Nations Environment Programme (UNEP), this panel takes a seat on the international stage beside the Intergovernmental Panel on Climate Change (IPCC) and the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES). All three panels aim to provide authoritative scientific assessments to decision-makers and the public to mitigate the “triple planetary crisis” of climate change, biodiversity loss and chemical pollution.¹

With the ISP-CWP still in its infancy, the world governments must now define how the ISP-CWP will achieve its goal of providing policy-relevant advice, prioritized from the wide diversity of issues under the umbrella of chemicals, waste, and pollution prevention, as well as horizon scanning and capacity

building. This Viewpoint provides ideas to inform the panel’s work and encourages scientists and knowledge keepers to contribute to the panel’s activities. It comes as the ISP-CWP will hold its first plenary session in February 2026 in Geneva, Switzerland, where decisions will be made on how to set up the panel’s work program and make the panel operational.²

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■ MANDATE OF THE ISP-CWP

Similarly to other intergovernmental panels, the basis of the ISP-CWP is to promote science-policy exchanges by marshaling existing science and encouraging scientists to fill knowledge gaps to enable and support governments' formulation, adoption and implementation of evidence-based, effective policies. A key focus of the ISP-CWP is supporting Low- and Middle-Income Countries (LMICs) with evidence-based options for policy development and building capacity among scientists, policymakers and others. Here, priorities need to come from representatives of LMICs while acknowledging that limited information is available to inform prioritization. As well, the panel will support and complement, but not duplicate, the efforts of multilateral environmental agreements such as the Basel, Rotterdam, Stockholm and Minamata Conventions.

Ultimately, governments will drive the workplan of the panel with recommendations through the panel's Interdisciplinary Expert Committee (IEC).² This committee will invite and prioritize nominations of topics for assessment, select experts to participate in those assessments, and manage the peer review process. The IEC will be composed of experts nominated by governments from the five United Nations regions. In addition, the IEC's chair may invite observers of the ISP-CWP to meetings. The final composition of the IEC will need to balance broad representation across geographies, genders, economic capacities and expertise in physical, natural and social sciences, as well as Indigenous and local knowledge. The procedures for selecting IEC members must prioritize expertise, impartiality, and adherence to the panel's Conflict of Interest policy.² It will be of great importance for capable, experienced and independent scientists and knowledge keepers to be nominated by their governments for the IEC and to participate in preparing assessments.

■ A STARTING POINT FOR THE ISP-CWP

As the rules of procedure for the ISP-CWP, including direct engagement of the scientific community, are hammered out by governments, the scientific community can help to advance the mission of the panel by laying out principles that would guide the panel's substantive work, touching on both barriers and enabling factors for chemical and waste management, as well as pollution control measures (see Figure 1).

With the overarching goal of protecting human and ecosystem health, we recommend that the panel undertake



Figure 1. Main elements for starting work toward the protection of human and ecosystem health within the ISP-CWP.

retrospective and prospective assessments, where the latter is intended to avoid costly future damage.³ To maximize their effectiveness, these assessments should take a comprehensive, holistic view by analyzing the broad array of technological, social and economic factors that can be barriers to developing and implementing effective policies leading to durable, positive change. Similarly, enabling factors for positive change need to be identified along with policy instruments and other avenues to amplify their effectiveness, including synergies with IPCC and IPBES to build on shared expertise and lessons learned. The need for taking a holistic approach is particularly acute for low-resourced governments with limited scientific capacity, and yet whose populations are often vulnerable to chemical pollution and waste.

■ AMBITION FOR THE ISP-CWP

We acknowledge the obstacles confronting multilateralism in world geopolitics and in the environmental arena,⁴ such as the collapsed efforts to negotiate a multilateral treaty to reduce plastic pollution as a recent example. However, the ISP-CWP also begins its life with evidence that multilateralism is working. In spring 2025, the Conferences of the Parties of the Basel, Rotterdam and Stockholm (BRS) Conventions adopted 29 decisions, including the listing of three new persistent organic pollutants (POPs): chlorpyrifos, long-chain perfluorocarboxylic acids (LC-PFCAs), and medium-chain chlorinated paraffins (MCCPs). The sixth Conference of the Parties to the Minamata Convention adopted 21 decisions, including the phase-out of mercury-containing dental amalgams by 2034, and to cooperate to address biodiversity loss (we note that several of the Conference of the Parties' decisions were exemptions). Additional inspiration can be drawn from the "Kigali process", which enabled the amendment of the Montreal Protocol beyond ozone depleting substances to include hydrofluorocarbons, which are potent greenhouse gases. The "Kigali process" rested on the combination of science, policy development and clever diplomacy.⁵

■ A CALL TO ACTION

To support the ISP-CWP, we call on the scientific community and all knowledge holders to actively contribute to its vibrancy. Scientists can attend the panel's Plenary if they belong to organizations accredited as observers to the BRS and Minamata Conventions or to UNEP-accredited organizations, where UN accreditation is open to nongovernmental organizations including universities.⁶ Additional opportunities for involvement will become apparent after the first Plenary as the Panel decides on its mode(s) of function and priorities.² Scientists can also contribute by producing the studies and knowledge that will be the well-spring of the panel. Specifically, the ISP-CWP's work will derive from continuing and emerging knowledge—the ISP-CWP will not create "new" knowledge but will synthesize existing knowledge. We call on the ISP-CWP to further clarify and open opportunities for independent scientists at large to contribute to the panel's work. With this call to action, we need to be mindful of lop-sided efforts and resources devoted to known issues facing High-Income Countries (HICs) versus the need for and yet lack of support for both recognized (but insufficiently addressed) and less recognized issues confronting the most vulnerable, especially

those in LMICs. Thus, our call to action recognizes what we have known for a very long time: pollution knows no borders.

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Notes

The authors declare no competing financial interest.

Biographies



Miriam Diamond is a professor at the University of Toronto with a research focus on understanding chemical contaminants from emissions through to human and ecosystem exposure. She is active in promoting sound chemicals management at national to international scales, having been the co-chair of Canada's Chemicals Management Plan Science Committee and Ontario's Toxic Reduction Scientific Expert Panel. She is now a member of the Scientific and Technical Advisory Panel of the Global Environmental Facility, a Commissioner of Earth Commission 2.0, which is hosted by Future Earth and is part of the Global Commons Alliance, and Vice-Chair of the International Panel on Chemical Pollution, in addition to being involved in other national and international activities.



Gabriel Sigmund is an Assistant Professor at Wageningen University & Research. His research aims to better understand and predict chemical contaminant sorption, mobility, and persistence in engineered (e.g., sorbent-filled reactors) and natural environments (e.g., soil passage) and to use those insights to improve chemical assessment, as well as the environmental footprint and performance of treatment technologies. He is a board member of the International Panel on Chemical Pollution, in addition to being involved in other national and international activities. Therein, he translates his knowledge to a broader audience to inform and support societal developments and policies to reduce negative effects of certain chemicals on ecosystems and human health.

REFERENCES

- (1) Baste, I. A.; Watson, R. T. Tackling the Climate, Biodiversity and Pollution Emergencies by Making Peace with Nature 50 Years after the Stockholm Conference. *Glob. Environ. Change* **2022**, *73*, No. 102466.

(2) UNEP - UN Environment Programme. Pre-session Documents UNEP/ISP-CWP.1. <https://www.unep.org/isp-cwp/plenary/session-1/psd> (accessed 2025-12-11).

(3) Diamond, M. L.; Sigmund, G.; Bertram, M. G.; Ford, A. T.; Ågerstrand, M.; Carlini, G.; Lohmann, R.; Šebková, K.; Soehl, A.; Starling, M. C. V. M.; Suzuki, N.; Venier, M.; Vlahos, P.; Scheringer, M. Exploring Outputs of the Intergovernmental Science-Policy Panel on Chemicals, Waste, and Pollution Prevention. *Environ. Sci. Technol. Lett.* **2024**, *11*, 664.

(4) Kim, R. E.; Bridgewater, P. Environmental Treaties Are Paralysed — Here's How We Can Do Better. *Nature* **2025**, *646* (8087), 1054–1056.

(5) Birmpili, T. Montreal Protocol at 30: The governance structure, the evolution, and the Kigali Amendment. *Comptes Rendus Géoscience* **2018**, *350* (7), 425–431.

(6) UNEP - UN Environment Programme. Accreditation. <https://www.unep.org/civil-society-engagement/accreditation> (accessed 2025-12-10).