IPCP White Paper

on the Scope and Functions of the Science-Policy Panel to Contribute Further to the Sound Management of Chemicals and Waste and to Prevent Pollution

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Preamble

In its **resolution 5/8,** the United Nations Environment Assembly (UNEA) decided to establish a science-policy panel by the end of 2024 to contribute further to the sound management of chemicals and waste and to prevent pollution (hereafter referred to as "the Panel"). We fully endorse this resolution. **This resolution should be followed as the basis for the Open-Ended Working Group (OEWG)**. The present White Paper was prepared as an input to the resumed first session of the ad hoc Open-Ended Working Group on the Science Policy Panel (OEWG-1.2) in Bangkok, Thailand, from January 30 to February 3, 2023, with a focus on the Panel's scope and principal functions.

Considerations on Scope

We welcome the integrative approach suggested in the note prepared by the secretariat and agree that chemicals, waste, and pollution are strongly intertwined fields that should thus be addressed together. Due to the broad and interconnected nature of chemicals, waste, and pollution with other issues of global concern, the scope of the Panel should also be tailored to complement existing efforts and create synergies with other bodies such as the Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services (IPBES) and the Intergovernmental Panel on Climate Change (IPCC). Where appropriate, the Panel should collaborate and coordinate with other relevant bodies and existing multilateral environmental agreements to maximize co-benefits and complementarity with ongoing efforts.

A systemic approach to chemicals, waste, and pollution

The panel should take a broad systemic approach to chemicals, waste, and pollution to assess chemicals from raw material extraction, chemical production, and use through to disposal, and to identify possible points of action for better management and/or regional capacity building. In addition to such production-centered approaches, the scope should include impact-centered approaches that trace the chemicals and waste causing negative impacts on human health and ecosystems back to sources. Thus, broadly the scope should include (i) legacy chemicals, pollution and waste, (ii) current-use chemicals and their transformation products, (iii) waste, such as industrial waste, biosolids, and wastewater, (iv) geogenic pollution from anthropogenic sources (e.g., many metals and metalloids), and (v) unintentional emissions, such as from industrial accidents and natural disasters.

A broad scope is needed

We suggest that the scope should reflect the needed assessment- and foresight-oriented functions described later in this document. A possible wording for the scope could be "*to strengthen the science-policy interface on the sound management of chemicals, waste, and pollution and associated impacts at global and regional scales to safeguard human and ecosystem health*."

Therein, an open-list approach with a broad scope is advantageous for its adaptability and flexibility for capturing the highly dynamic nature of the issues to be covered by the Panel. Issues should be prioritized by expert working groups once the Panel is in place. We maintain that no issue is to be excluded a priori, but rather a prioritization process driven by experts should be used to direct activities of the Panel.

A conceptual framework by experts

The conceptual framework used by other Panels, including the IPBES, was developed through an expert-driven process and, in the case of IPBES, was approved by its plenary assembly. We maintain this aspect to be of lower priority at this point in time, as good practice examples can be developed and adopted by the experts involved once the Panel is established.

Considerations on Functions

The UNEA considered in its **resolution 5/8** that the Panel should include four principal functions**.** We here discuss these four principal functions (**cited in bold**) in relation to our vision of the Panels' scope as discussed above and suggest a fifth one.

(a) Undertaking "horizon scanning" to identify issues of relevance to policymakers and, where possible, propose evidence-based options to address them. Most globally ratified agreements on chemicals were established to respond to significant negative impacts. We envisage that a crucial function of the Panel will be to anticipate the need for such activities earlier on, and to identify issues of emerging concern and/or opportunities, based on a non-targeted scanning of

public knowledge and expert literature. Therein, foresight is an important complement to existing evidence and related activities. These activities may necessitate the establishment of an integrated database as discussed in (c) below. We note that the lack of data from some countries and regions, such as low- and middle-income countries, should *not* be interpreted as a lack of a problem during horizon scanning exercises. This is further discussed in (b) below. The term "horizon scanning" must not be understood to refer to a particular method, such as those based on Delphi-type approaches, since they are heavily dependent on the choice of participants. We therefore suggest the expression "scientifically based inventories of emerging issues" be used instead.

(b) Conducting assessments of current issues and identifying potential evidence-based options to address, where possible, those issues, in particular those relevant to developing countries. To conduct assessments. the Panel may consider the establishment of topically specialized working groups consisting of independent experts and scientists which should prepare regular topic-specific assessments. The Global Waste Management Outlook and the Global Chemicals Outlook, currently prepared by UNEP, could be prepared by such specialized working groups. All assessments prepared by working groups should build on technical knowledge and the whole body of the peer-reviewed literature while working towards extending the knowledge base and capacity of low- to mid-income countries, where such information is often scarce. For certain chemicals, broad knowledge of their hazardous properties exists; reassessing the same topics should be avoided to use resources efficiently. The working groups need to genuinely include indigenous knowledge. The inclusion of different knowledge bases should also strive to be representative of low- and middle-income countries. Incorporation of these other knowledge bases and socio-economic expertise is needed to make findings actionable and implementable. The formation of new working groups should be foreseen in view of horizon-scanning activities (scientifically based inventories of emerging issues) as described in (a). Stringent procedures and strong standards need to be developed and implemented for experts appointed to the Panel at an early stage of the negotiations to avoid conflicts of interest and bias in preparing and prioritizing assessments.

(c) Providing up-to-date and relevant information, identifying key gaps in scientific research, encouraging and supporting communication between scientists and policymakers, explaining and disseminating findings for different audiences, and raising public awareness. To identify potential medium- and long-term opportunities and issues to be addressed by the Panel, an integrated knowledge collection may be necessary. Such a knowledge base could be coordinated by the Panel, should be publicly available, and should include FAIR (findable, accessible, interoperable, and reusable) data on material flows, chemicals, waste, and pollution indices that are globally representative. Knowledge management and transfer strategies tailored towards policymakers from national to global, the general public, and broadly, other audiences and affected parties, should be used to disseminate insights and knowledge from the abovementioned assessments. Knowledge management should aim for inclusivity, particularly for interested audiences and affected parties from underrepresented interest groups, low- and middle-income countries, and indigenous peoples.

(d) Facilitating information-sharing with countries, in particular developing countries seeking relevant scientific information. Capacity-building activities should focus on improving capabilities of producing scientifically based knowledge to support a diversity of interested parties,

particularly in low- and middle-income countries. Such activities need to strengthen the capacity to create inventories of emerging issues, sound chemical waste and pollution management, and to develop solution-oriented strategies, such as safe- and sustainable-by-design approaches. Due to the high workload associated with capacity building, this function should be supported by partner organizations.

Suggestion for (e): In addition to the above four functions, research involving data collection, curation and processing for better assessments, particularly in (a) and (b), is needed. Research should be conducted by independent academic researchers from all relevant disciplines with maximal transparency to avoid conflicts of interest.