

IUPAC's Role in UN Panel on Chemicals, Waste, and Pollution Prevention

by Javier García Martínez

The United Nations Environment Assembly (UNEA), in its Resolution 5/8, decided on the creation of the Intergovernmental Panel on Chemicals, Waste, and Pollution Prevention (IPCP) [1]. This resolution stated that a science-policy panel should be established to contribute further to the sound management of chemicals and waste, prevent pollution, and to convene—subject to the availability of resources—an ad hoc Open-Ended Working Group (OEWG). The OEWG started its work in 2022, with the ambition of completing it by the end of 2024 [2]. The next steps for this OEWG include the establishment of the panel, the selection of panel members, and the development of the assessment process. The panel members will be selected based on their expertise in the field of chemical pollution and their ability to provide a balanced and objective assessment of the state of chemical pollution. The assessment process will include a comprehensive review of the scientific literature, as well as input from stakeholders.

IUPAC should play a significant role in any international effort aimed at sustainable management of chemicals, reduction of waste production, and pollution prevention. For decades, the Union has been working and producing invaluable data, standards, and methods in different areas that are of interest for IPCP. It's worth highlighting the many contributions of the Chemistry and the Environment Division (Div VI), the Chemistry and Human Health Division (Div VII), CHEMRAWN, and the Interdivisional Committee on Green Chemistry for Sustainable Development (ICGCSD) in promoting a more sustainable chemistry. The recommendations,

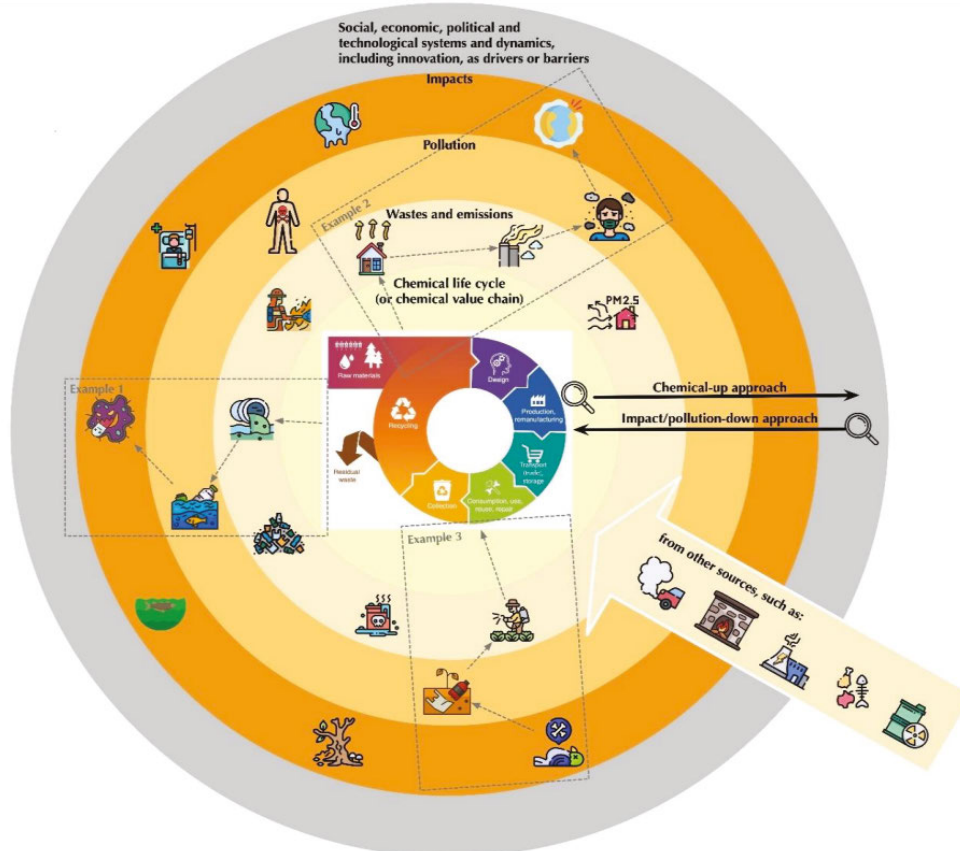
standards, and verified data provided by IUPAC and its different bodies are an essential part of any international effort aiming at reducing waste and pollution. In this regard, IUPAC efforts regarding minimizing production and dealing with e-waste shall be mentioned [3]. This includes an international conference held in Nigeria in November 2021 under the title of "CHEMRAWN XXII E-Waste in Africa" [4] and more recently a call for papers for a special issue of *Chemistry Teacher International* concerning the theme: "Effective teaching tools and methods to learn about e-waste" [5]. Other examples of how IUPAC can contribute to the goals of IPCP are its Technical Report on Human Exposure to Outdoor Air Pollution, its Glossary for Chemists of Terms Used in Toxicology, and the many conferences organized or supported in areas such as green chemistry, analytical chemistry, and chemistry education.

The IPCP operates through a network of experts from around the world who are appointed by the UNEP Governing Council. These experts work together to assess the state of knowledge on various chemicals and waste-related issues and to provide recommendations for action. The IPCP also works closely with other international organizations, such as the World Health Organization (WHO) and the United Nations Industrial Development Organization (UNIDO), to ensure that its advice is consistent with the latest scientific and technical knowledge.

In addition to its global assessments, the IPCP also provides technical assistance and capacity building to countries and organizations to help them implement chemicals and waste-related policies and programmes. This assistance can include providing training and resources on specific issues, such as the safe management of hazardous waste, or supporting the development of national chemicals and waste management plans.



Introduction slide of the webinar organized by the UN Environmental Programme to define the objectives and strategies of the Science-Policy Panel for chemicals, waste, and pollution prevention held online on 24 January 2023.



LEGEND

Wastes and emissions:



Pollution:



Impacts:



A schematic illustration of the linkages between chemicals, waste and emissions, pollution, and impacts within the social, economic, political, and technological systems. The icons within each circle are examples and not exhaustive. Source: The chemical life cycle/value chain is reproduced from European Parliament, "Circular economy: the importance of re-using products and materials", 3 July 2015. (reproduced from https://wedocs.unep.org/bitstream/handle/20.500.11822/41426/scope_science_policy_panel.pdf)

An important meeting towards the creation of the IPCP and selection of its members was held in Bangkok, Thailand, from 30 January to 3 February 2023. Several IUPAC representatives attended online and had the opportunity to contribute with ideas and proposals [6].

Prior to these activities, and convened by the Royal Society of Chemistry (RSC), several stakeholders gathered in a series of both online and in-person meetings to debate and agree on specific actions toward the creation

of IPCP. As a result of these activities, the Burlington Consensus was established, which provides a framework for the development of chemicals and waste-related policies and programmes, and is intended to guide the work of governments, industry, and other stakeholders. The Burlington Consensus also includes a number of recommendations that governments, industry and other stakeholders can take to promote the sustainable use of chemicals and the reduction of pollution and waste [7].



Second in-person meeting of the OEWG1.2 on Science-Policy Panel to contribute further to the sound management of chemicals and waste and to prevent pollution held in Bangkok, Thailand, from 30 January - 3 February 2023.

As the UN Secretary-General, Antonio Guterres, once said “There is no other way to deal with global challenges than with global responses” [8]. IUPAC will continue to play a crucial role in building solutions based on the best knowledge available and cooperation to fulfill our mission of fostering sustainable development, providing a common language for chemistry, and advocating the free exchange of scientific information. 🏛️

References:

1. UNEA Resolution 5/8 entitled “Science-policy panel to contribute further to the sound management of chemicals and waste and to prevent pollution” <https://wedocs.unep.org/bitstream/handle/20.500.11822/40653/UNEP.SPP-CWP.OEWG.1%28I%29.INF.1.pdf>
2. Science-Policy Panel to contribute further to the sound management of chemicals and waste and to prevent pollution <https://www.unep.org/oewg1.2-ssp-chemicals-waste-pollution>
3. IUPAC Efforts in e-waste, E-waste: A Global Threat. <https://iupac.org/e-waste/>
4. CHEMRAWN XXII e-waste in Africa & the 44th Annual International Conference (AIC) of the Chemical Society of Nigeria (CSN), Global Electrical and Electronic Waste: Health Hazards For Africa <https://iupac.org/event/chemrawn-xxii-e-waste-in-africa/>
5. Special issue of Chemistry Teacher International concerning the theme: “Effective teaching tools and methods to learn about e-waste” <https://iupac.org/best-practices-in-chemistry-education-and-around-e-waste/>
6. Countries Begin Work Towards Science-Policy Panel on Chemicals <https://sdg.iisd.org/news/countries-begin-work-towards-science-policy-panel-on-chemicals/>
7. The Burlington Consensus— Science and policy’s call for a global panel on chemicals, waste and pollution <https://www.rsc.org/events/detail/73023/the-burlington-consensus-science-and-policys-call-for-a-global-panel-on-chemicals-waste-and-pollution>
8. António Guterres address to the World Economic Forum (2019) <https://www.weforum.org/agenda/2019/01/these-are-the-global-priorities-and-risks-for-the-future-according-to-antonio-guterres/>

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