

# Supporting the Science–Policy Interface on Chemicals, Waste and Pollution

## International Panel on Chemical Pollution

Miriam Diamond

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Marlene Ågerstand

Marta Venier



# Agenda

Welcome – Martin Scheringer, ETH & RECETOX

Background presentation – Zhanyun Wang, EMPA

Q&A – Miriam Diamond, University of Toronto

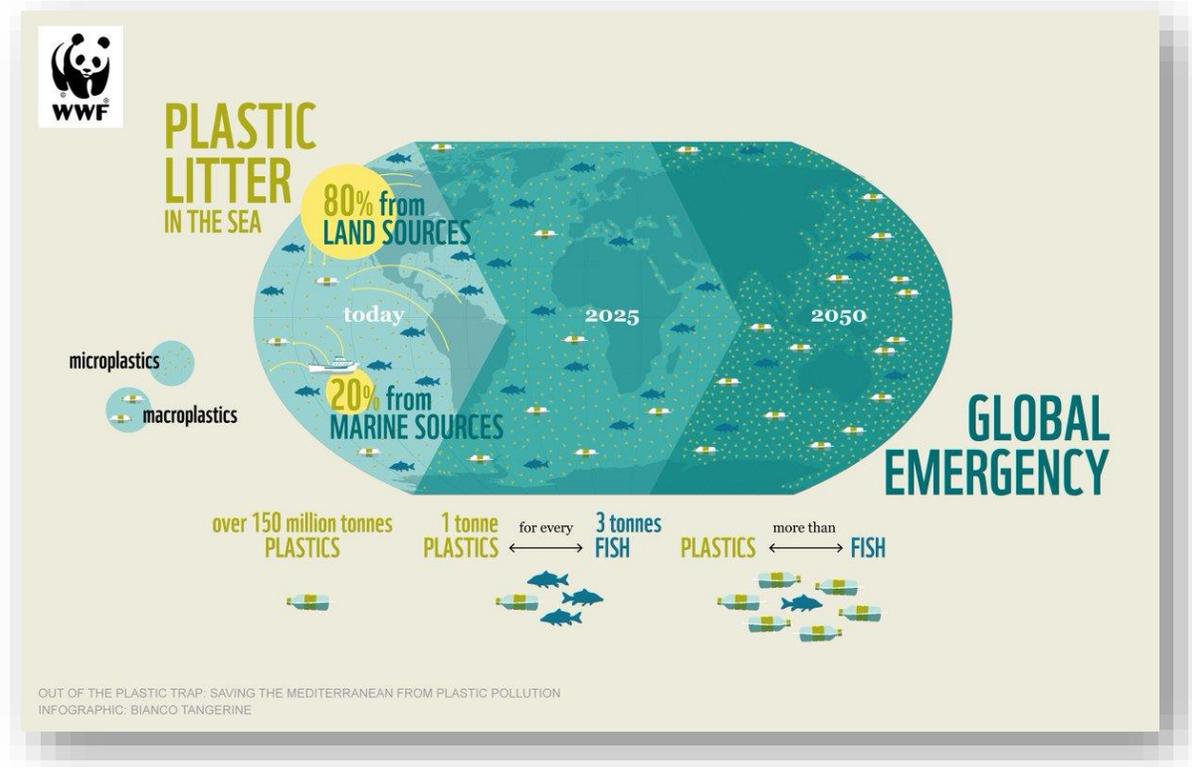
Close Webinar – Martin Scheringer, ETH & RECETOX

Finally – you write a letter!



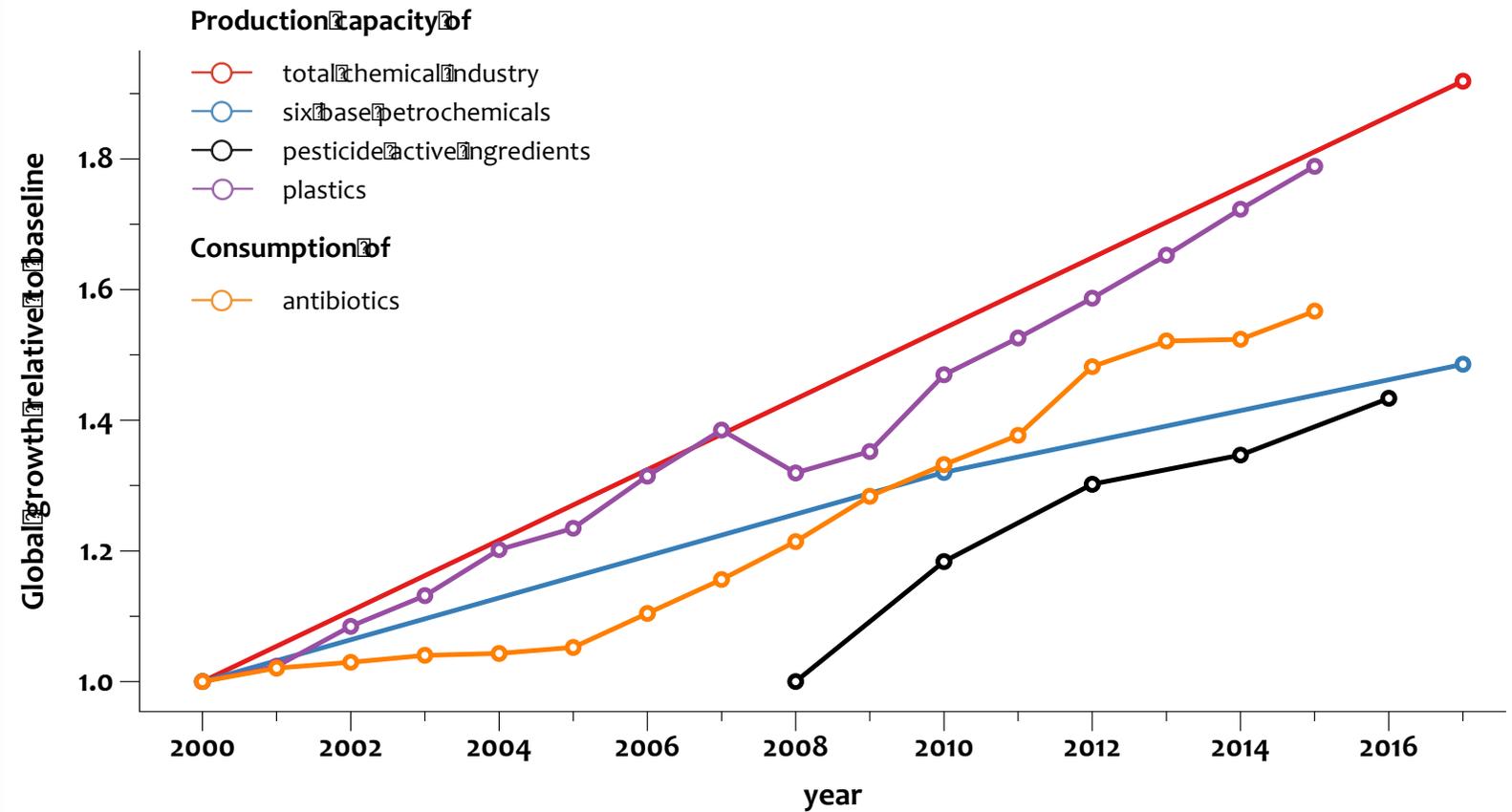
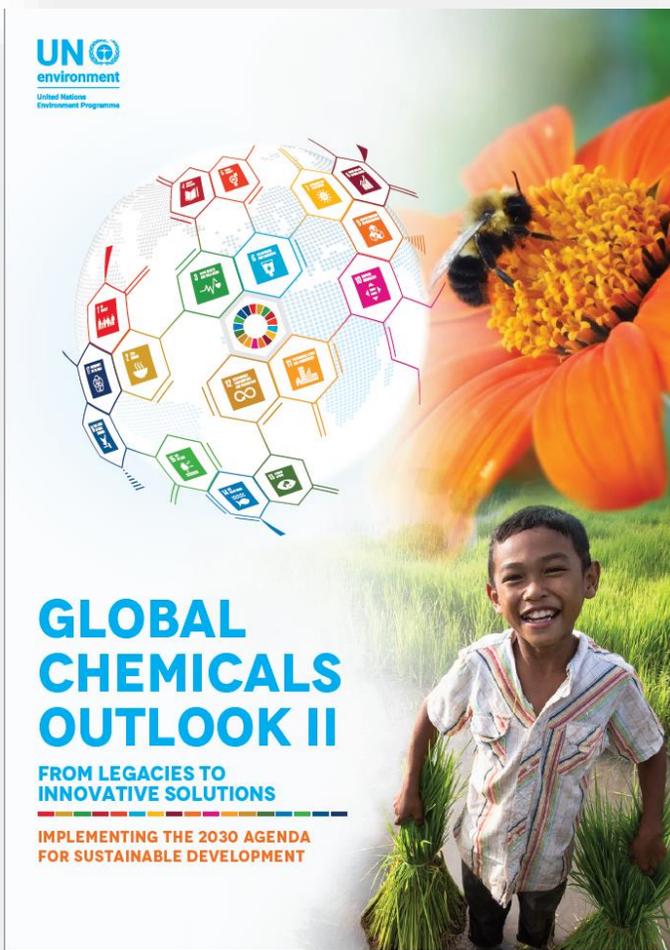
# The Global Threat of Chemical Pollution

- ❑ **1.24 million premature deaths per year** from lead exposure and occupational exposure to 12 chemicals and groups of chemicals
- ❑ **385 million cases of unintentional, acute pesticide poisoning** and **11,000 fatalities per year** (44% farmers)
- ❑ **Over 100 billion Euro per year societal costs** associated with exposure to endocrine disrupting chemicals in the EU
- ❑ **Over 50 billion Euro per year and over 37 billion USD per year healthcare costs** associated with PFAS exposure in the EU and US, respectively



Sources: <https://www.thelancet.com/gbd/summaries>;  
Boedeker et al. (2020) *BMC Public Health*; Trasande et al. (2015) *JCEM*;  
Cordner et al. (2021) *ES&T*

# Time Trends are of Concern

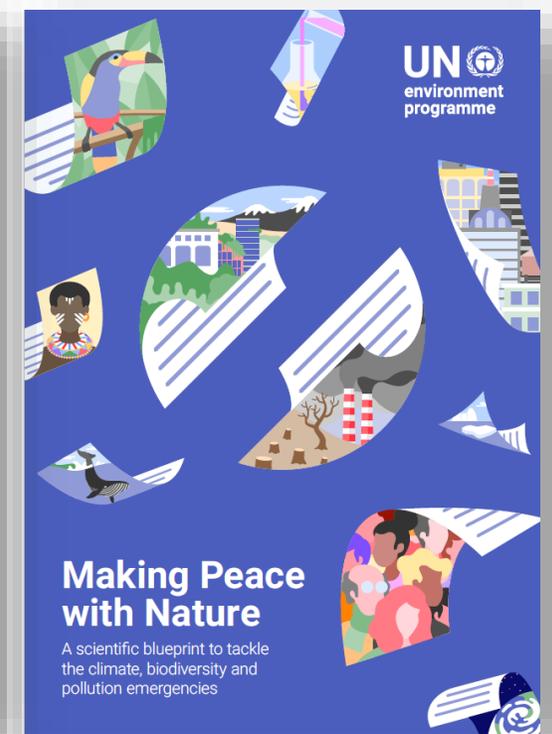
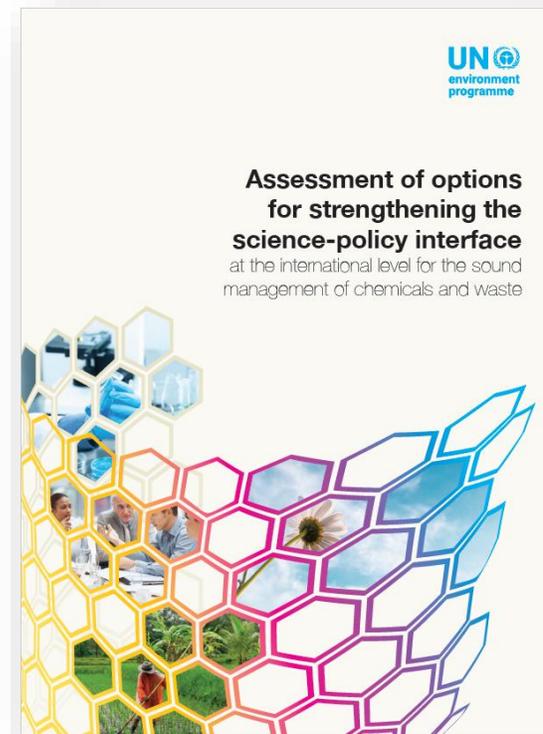


L. Persson et al., *Environmental Science and Technology*, In press.

# UNEA Resolution 4/8

**Emphasizing** the importance of strengthening the science-policy interface and the global evidence base for chemicals

**Stressing** the urgent need to strengthen the science-policy interface at all levels to support and promote science-based local, national, regional and global action on the sound management of chemicals and waste beyond 2020



# Gaps & Needs Analysis



MULTI-STAKEHOLDER WORKSHOP  
ON STRENGTHENING THE  
SCIENCE-POLICY INTERFACE IN  
INTERNATIONAL CHEMICALS  
GOVERNANCE: SUMMARY



December 2018



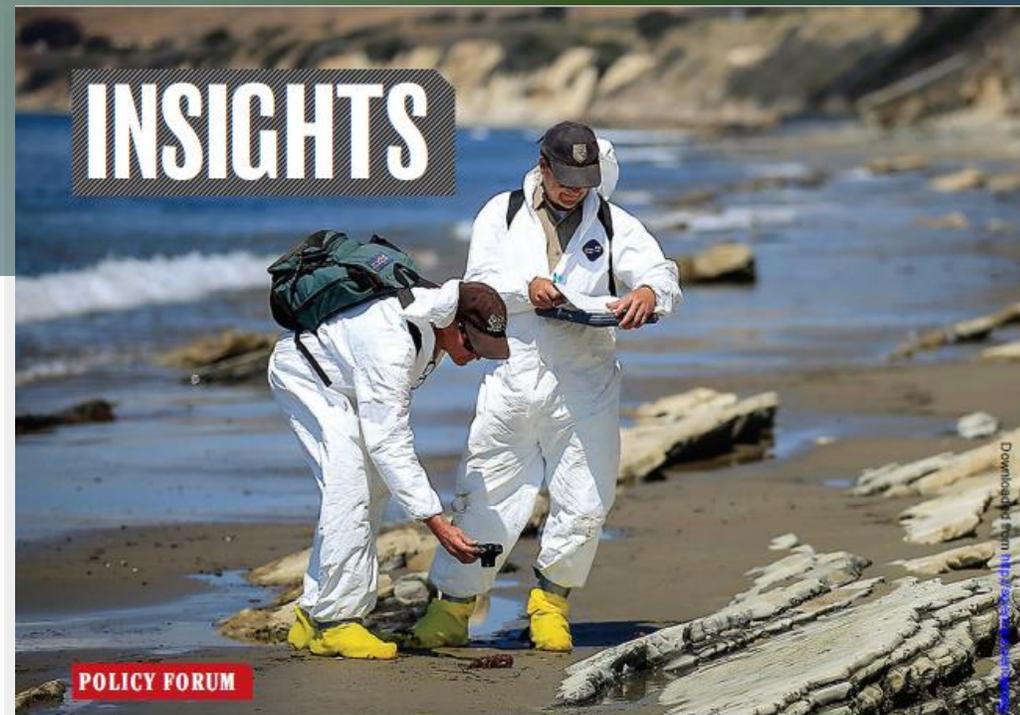
STRENGTHENING THE SCIENCE-  
POLICY INTERFACE IN INTERNATIONAL  
CHEMICALS GOVERNANCE:

A Mapping and Gap Analysis



February 2019

<https://www.ipcp.ch/activities/strengthening-the-science-policy-interface-in-international-chemicals-governance>; <https://www.science.org/doi/10.1126/science.abeg090>



ENVIRONMENTAL SCIENCE

## We need a global science-policy body on chemicals and waste

Major gaps in current efforts limit policy responses

By Zhanyun Wang<sup>1</sup>, Rolf Altenburger<sup>2,3</sup>, Thomas Bachhaus<sup>4</sup>, Adrian Covac<sup>5</sup>, Miriam L. Diamond<sup>6</sup>, Joan O. Grimalt<sup>7</sup>, Rainer Lohmann<sup>8</sup>, Andreas Schäffer<sup>9</sup>, Martin Scheringer<sup>10,11</sup>, Henrik Selin<sup>12</sup>, Anna Soehl<sup>13</sup>, Noriyuki Suzuki<sup>14</sup>

**M**any countries and regional political unions have regulatory and policy frameworks for managing chemicals and waste associated with human activities to minimize harms to human health and the environment. These frameworks are complemented and expanded by joint international action, particularly related to pollutants that undergo long-range transport via air, water, and

biota; move across national borders through international trade of resources, products, and waste; or are present in many countries (1). Some progress has been made, but the Global Chemicals Outlook (GCO-II) from the United Nations Environment Programme (UNEP) (2) has called for "strengthen[ing] the science-policy interface and the use of science in monitoring progress, priority-setting, and policy-making throughout the life cycle of chemicals and waste." With the UN Environment Assembly (UNEA) soon meeting to discuss how to strengthen the science-policy interface on chemicals and waste (2), we analyze the landscape and outline recommendations for establishing an overarching body on chemicals and waste.

The world has seen a tremendous increase in the amount and variety of chemicals in use, with continuous growth expected; global chemical sales reached over US\$5.6 trillion in 2017 and are projected to almost double by 2030 (3). Similar trends are also true for waste generation; for example, global plastic waste entering the ocean is estimated to increase from 4.8 to 12.7 million tonnes in 2010 to some 100 to 250 million tonnes by 2025 (4).

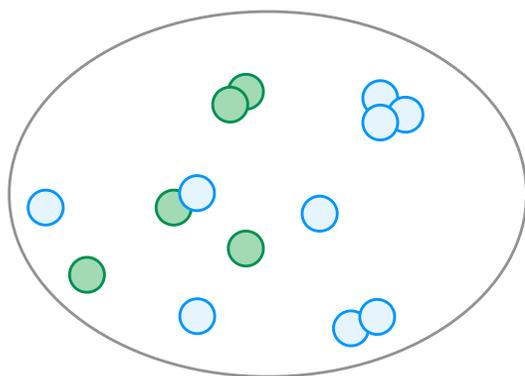
When chemicals and waste are poorly managed, not only are valuable resources lost, but chemical pollution can cause a wide range of adverse effects on human and ecosystem health at local, regional, and global levels. The latest Global Burden of Disease study estimated that exposure to lead and occupational exposure to 12 chemicals or groups of chemicals (a tiny fraction of the more than 100,000 chemicals in use) contributed to over 1.3 million premature human deaths in 2017 (5). Chemical pollution has also caused stratospheric ozone depletion, and it plays an important role in climate change (e.g., synthetic halogenated gases contributed over 10% of the global radiative forcing in 2011) (6) and ecosystem

# Why We Need a New Global SPI Body

## (A) CURRENT GAPS

### 1. A lack of coverage

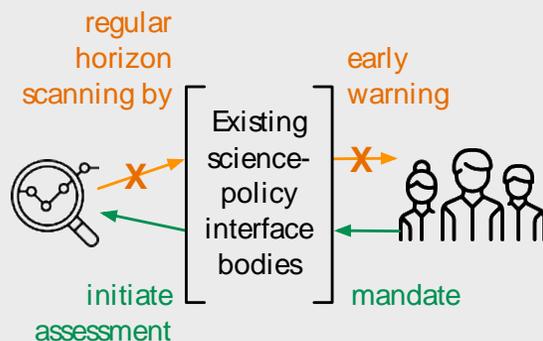
comprehensively + partially covered vs NOT covered



the chemicals and waste universe

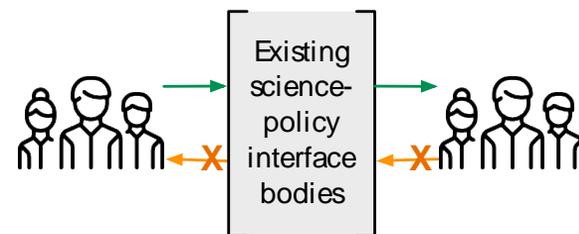
### 2. A lack of regular horizon scanning and early warning

scientific evidence vs policymakers



### 3. A lack of bi-directional communication

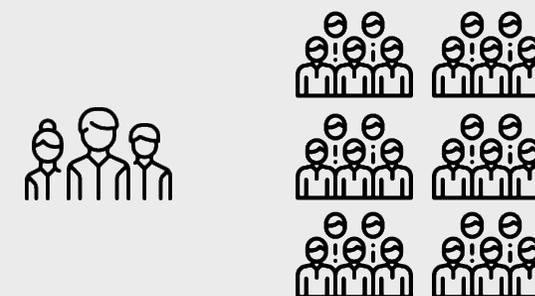
scientists vs policymakers



→ information flow

### 4. A lack of engagement of the wide scientific community

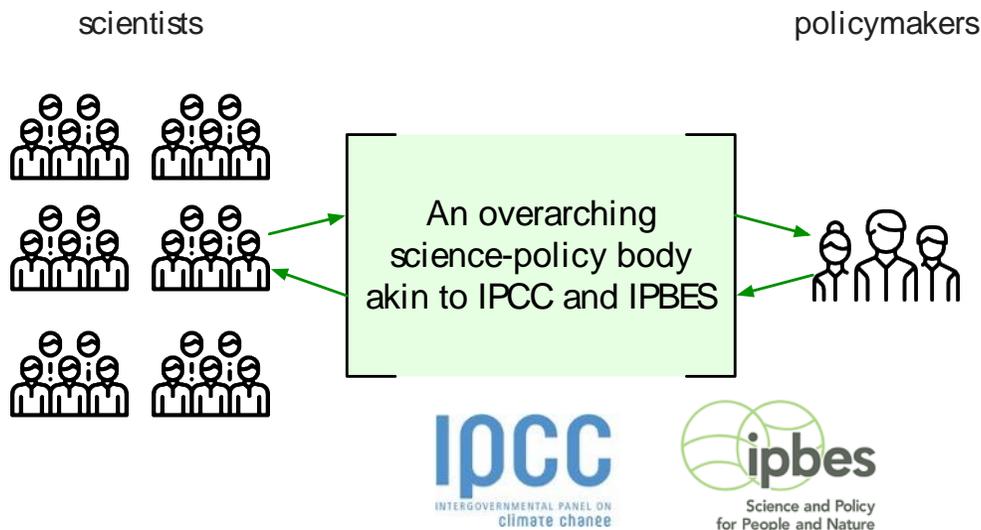
engaged scientists vs NOT engaged



<https://www.science.org/doi/10.1126/science.abeg090>

# Key Elements for a New Global SPI Body

## (B) OUR VISION



### Core characteristics

- ✓ **Intergovernmental**  
with stakeholders as observers and providing inputs
- ✓ **Objective, independent & transparent**  
with clearly defined rules and procedures (including a strict conflict-of-interest policy)
- ✓ **Representative and inclusive**  
of disciplines, gender and regions
- ✓ **Active communication**  
with policymakers, scientists and the public

<https://www.science.org/doi/10.1126/science.abeg090>

# Wide Support from Independent Scientists

Sign-on Campaign: Developing a global science-policy body on chemicals and waste < >

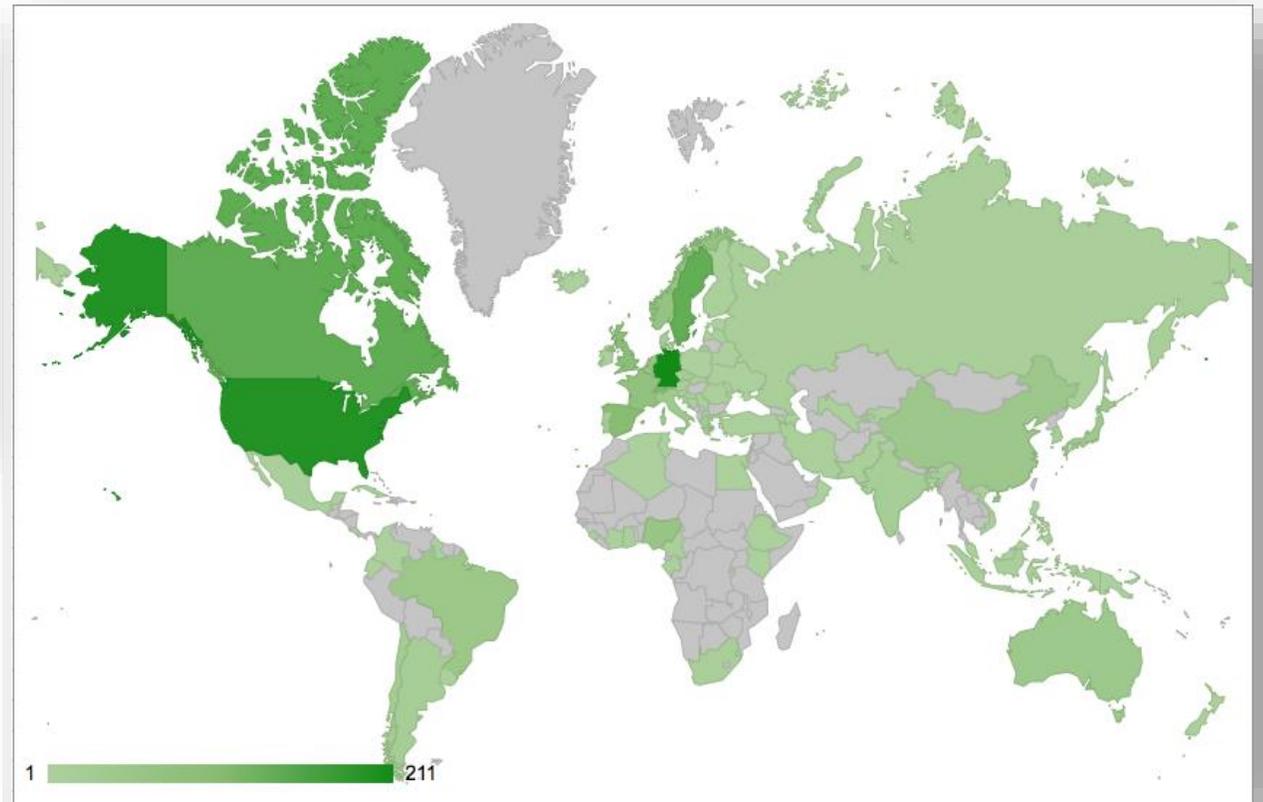
PUBLISHED ON MARCH 10, 2021.

**Over 1800 scientists & practitioners from over 80 countries have already signed-on.**

English | العربية | 中文 | Español | Français | Русский

**Support from over 1850 scientists & practitioners from over 80 countries**

**Please sign and get others to sign!**



<https://www.ipcp.ch/activities/developing-a-global-science-policy-body-for-chemical-pollution;>

<https://www.ipcp.ch/activities/global-chemicals-waste-management-workshop-on-grand-challenges-opportunities>

# Path towards UNEA 5.2

**Agrees** that a science-policy panel should be established to support action on chemicals, waste and pollution

**Agrees** that the principal functions of the panel should be to:

- (i) undertake horizon scanning and identify issues of concern
- (ii) undertake assessments
- (iii) communication and outreach

**Agrees** that the panel should be an autonomous intergovernmental body

**Decides** to establish an ad hoc OEWG ...

## Draft resolution for a Science-Policy Panel to support action on chemicals, waste and pollution

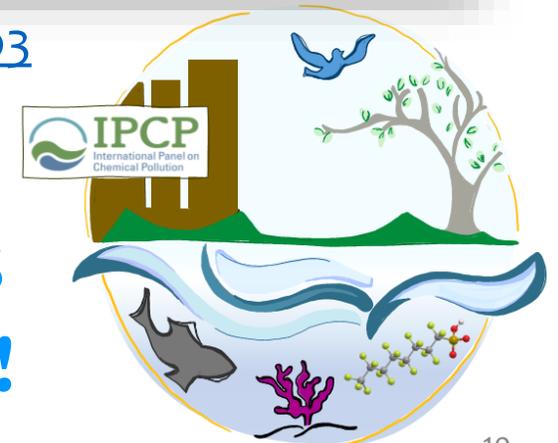
Submitted by Costa Rica, Ghana, Mali, Switzerland, United Kingdom of Great Britain and Northern Ireland, and Uruguay

Version: 10.12.21

Contact: michel.tschirren@bafu.admin.ch

<https://tinyurl.com/4mses6b3>

**New Co-sponsors  
are still welcome!**



# Path towards UNEA 5.2



**Support at UNEA5.2  
is also key!**

**Now countries are forming their position for UNEA5.2!**



# What You Can Do

- ❑ Write a letter to your Minister of
  - Environment
  - Health
  - Foreign Affairs
- ❑ Also send a letter to influential policymakers
- ❑ Please share your letter with colleagues and/or get co-authors

**Preferably after  
the New Year**



# Content of the letter

- ❑ Ca. 1 page / brief
  - ❑ Background – importance for urgent global action (e.g. impacts, UNEP’s working priorities for 2022-25 are Chemical Pollution, Climate Change & Biodiversity)
  - ❑ Why we need a new SPI body and some key considerations
  - ❑ I [urge] you/the Government of XYZ to support the draft resolution as a co-sponsor of the draft resolution, or at UNEA5.2 scheduled for Feb 28- March 2, 2022
  - ❑ Please inform me about the Minister’s/government’s position
- ❑ Culturally appropriate language!
- ❑ Model letter: <https://tinyurl.com/muctj7r7>



# And Finally ...

- ❑ Please let us know if you've sent a letter!
- ❑ Please feel free to share your letter in your language for sharing on the IPCP website: [admin@ipcp.ch](mailto:admin@ipcp.ch)



# Thank You!

## Please

- sign our support campaign
- send a letter to your minister & let us know
- encourage your colleagues to participate

Model letter in English and hopefully other languages is available at: <https://www.ipcp.ch/news/model-letter-to-policymakers>

