



# Beyond 2020: Sustainable Chemistry - NGO recommendations

WECF / IPEN

May 2017

We welcome the initiative by Germany to broaden the discussion about chemicals management and sustainability, including measures to advance Agenda 2030. The recommendations presented here are endorsed by the public interest NGOs listed at the end of the paper, and are based on the IPEN/WECF paper for SAICM entitled, “Beyond 2020: Green chemistry and sustainable chemistry”, which was presented at the SAICM intersessional meeting in February 2017 in Brazil.<sup>1</sup> At its best, sustainable chemistry could shift the entire industry to safer production and improve environmental protection, consumer safety and occupational health and safety by eliminating hazards. The goal should be that countries not only manage dangerous chemicals better, but that industries design safer, non-toxic chemistries from the start.

## 1. Hazard reduction should be fully incorporated into a more precise definition along with a clear set of goals and indicators

The concept of sustainable chemistry is currently not fit for use in international, regional or national policy frameworks. It lacks a clear definition that incorporates hazard reduction, or a set of goals and indicators. The OECD and UBA definitions of sustainable chemistry describe a broad mission, but do not detail any specific targets for the reduction of hazard or improvement of human or environmental health. The aim of sustainable chemistry is vaguely described as, “*to reach sustainability in chemistry.*” Leaving the term “sustainable chemistry” without a clear definition invites labeling all kinds of current chemistries as sustainable chemistry, watering down the term to render it nearly useless and leaving opportunities to “greenwash” chemistries with a term that suggests social or environmental benefits that do not exist. Possible examples of such misleading “green” efforts could be using HBCD in insulation materials, or mercury in light bulbs for the sake of preventing climate change. A more precise definition of sustainable chemistry is needed to clarify the relationship between hazard reduction and other desirable social or environmental outcomes. Green chemistry should be an obligatory part of sustainable chemistry so that hazard reduction is fully incorporated into the sustainable chemistry concept. Overall, sustainable chemistry must assure progress towards chemical safety and the sound management of chemicals with hazard reduction at its core.

## 2. Prioritize the reduction and elimination of hazardous chemicals from production and use

Sustainable chemistry can contribute to the Post 2020 SAICM process by prioritizing hazardous chemicals for phase-out and substitution. Informed substitution should be achieved by utilizing the process of alternatives assessment. A fundamental goal of alternatives assessment is to ensure that

---

<sup>1</sup> <http://www.saicm.org/Portals/12/documents/meetings/IP1/Beyond-2020-Green-chemistry-and-sustainable-chemistry-24-Jan-2017.pdf>

---

a safer alternative is implemented. A safer alternative “represents an option that is less hazardous to humans and the environment than the existing chemical or chemical process. A safer alternative to a chemical of concern may include a chemical substitute or a change in materials or design that eliminates the need for a chemical alternative.”<sup>2</sup> A future SAICM should include a focus on the goal of reducing and eliminating the hazards from chemical production and use throughout the life-cycle.

### 3. Internalize costs and resource the elimination of legacy toxic chemicals

Sustainable chemistry has an important role to play in financing. Legacy issues and internalization of costs are two key issues that must be included in any future chemicals framework. To address the problem of toxic legacy chemicals a robust funding mechanism is needed that incorporates the principles of polluter pays and the public’s right to know. None of the countries most threatened by legacy chemicals can finance remediation and clean up activities. Sustainable chemistry does not yet provide a solution for this problem, and it does not even mention it as a priority or a gap. Internalization of costs is another critical component of sustainable chemistry. It is often stated that sustainable products are more expensive than less hazardous ones. However, this is not true for many cases and does not take societal, health and environmental implications into account. Internalizing these externalized costs into the costs of production and the price of products would change the economics of sustainable chemistry and become a driver for less hazardous products and processes. We recommend measuring and disseminating the benefits of pollution prevention and the magnitude of externalized costs and exploring and implementing financing mechanisms to fully implement the polluter pays principle.

### 4. Include full disclosure of ingredients and information systems

The concept of sustainable chemistry should also include measures to ensure the “right to know” for consumers and users along the entire supply chain. Full transparency of chemical ingredients for all stakeholders along the entire supply chain is key to transforming the chemicals sector. Transparency can empower downstream producers, retailers, consumers and waste handlers to drive market demand for less hazardous products and processes.

---

#### This position is supported by the following organisations:

---

- Agenda for Environment and Responsible Development (AGENDA), Tanzania
- ALHem (Safer Chemicals Alternative), Serbia
- Alliance for Cancer Prevention, UK
- AMAR Environment Defense Association, Brazil
- APROMAC Environment Protection Association, Brazil
- Arbeitskreis Frauengesundheit in Medizin, Psychotherapie und Gesellschaft e.V. (AKF), Germany
- Armenian Women for Health and Healthy Environment, Armenia
- Associação de Combate aos Poluentes, Brazil
- Association of Environmental Education for Future Generations (AEEFG), Tunisia
- Balifocus Asia, Indonesia
- Basel Action Network, International

---

<sup>2</sup> National Research Council, A Framework to Guide Selection of Chemical Alternatives (2014), National Academies Press, page 13. <https://www.nap.edu/catalog/18872/a-framework-to-guide-selection-of-chemical-alternatives>

- 
- Breast Cancer, UK
  - Bund für Umwelt und Naturschutz Deutschland e.V. (BUND), Germany
  - Casacem, Mexico
  - Center for International Environmental Law (CIEL), International
  - Center for Public Health and Environmental Development (CEPHED), Nepal
  - Center of Environmental Solutions, Belarus
  - Centre for Environment Justice and Development (CEJAD), Kenya
  - Centro de Estudios sobre Tecnologías Apropriadas de la Argentina (CETAAR), Argentina
  - ChemSec, Sweden
  - Chem Trust, UK
  - Corpressa, Cameroon
  - Research and Education Center for Development (CREPD), Cameroon
  - Eco-Accord, Russia
  - Ecologistas en Acción, Spain
  - Ecological Restorations, Ghana
  - Environment and Social Development Organization (ESDO), Bangladesh
  - Environmental Quality Protection Foundation, Taiwan
  - European Environment Bureau, Belgium
  - Fundacion Aguaclara, Venezuela
  - Health and Environmental Alliance (HEAL)
  - Health Care Without Harm (HCWH), Europe
  - HEJ Support, Germany
  - Human Environmental Association for Development (HEAD), Lebanon
  - IndyACT, Lebanon
  - International Society of Doctors for Environment (ISDE)
  - IPEN, International POPs Elimination Network, International
  - JA!Justica Ambiental/FOE, Mozambique
  - Irrigation Training and Economics Empowerment Organization (IRTECO), Tanzania
  - PAN-Ethiopia, Ethiopia
  - Patisaul, Heather B, Professor, Biological Sciences, NC State University, Raleigh, USA
  - Red de acción en Plaguicidas y sus Alternativas de América Latina (RAPAL), Argentina
  - Red de Acción en Plaguicidas y sus Alternativas para América Latina México (RAPAL), Uruguay
  - Red de Accion en Plaguicidas y sus Alternativas en Mexico (RAPAM), Mexico
  - South Durban Community Environmental Alliance, South Africa
  - Supporters of Health and Rights of People in Semiconductor Industry (SHARPS),  
Republic of Korea

- 
- Sustainable Development Policy Institute (SDPI), Pakistan
  - The Cancer Prevention and Education Society, UK
  - TOXISPHERA Environmental Health Association, Brazil
  - Wild at Heart Legal Defense Association, Taiwan
  - Women Engage for a Common Future (WECF), The Netherlands
  - Women Engage for a Common Future (WECF), France
  - Women Engage for a Common Future (WECF), Germany
  - Women Engage for a Common Future (WECF), International
  - ZERO - Associação Sistema Terrestre Sustentável, Portugal

## Contacts

Sascha Gabizon, International director WECF

[sascha.gabizon@wecf.org](mailto:sascha.gabizon@wecf.org)

Annemarie Mohr, Director WECF Germany

[annemarie.mohr@wecf.org](mailto:annemarie.mohr@wecf.org)

Johanna Hausmann, Project Coordinator WECF Chemical and Health

[johanna.hausmann@wecf.org](mailto:johanna.hausmann@wecf.org)

[www.wecf.org](http://www.wecf.org)

Joseph DiGangi, PhD, Senior Science and Technical Advisor IPEN

[joe@ipen.org](mailto:joe@ipen.org)

[www.ipen.org](http://www.ipen.org)

**THIS PROJECT IS FINANCIALLY SUPPORTED BY:**



Federal Ministry for the  
Environment, Nature Conservation,  
Building and Nuclear Safety



The publisher is responsible for the content of this publication.