



## Novel Entities Update - 3

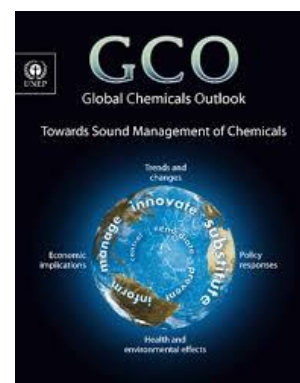
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Dear Friends,

In this third update on Novel Entities, we would offer you a summary of the Global Chemicals Outlook II, prepared by UNEP in 2019, being the latest available report to the best of my knowledge. This document was prepared through consultations with more than 400 experts globally, and a short video on it is available [here](#).

As this report was prepared after the adoption of the SDGs, it attempts to connect the impacts of chemicals on the SDGs, especially SDG 3 – Health, SDG 6 – Clean Water and Sanitation, SDG 11 – Sustainable Cities and Communities, SDG 12 – Responsible Consumption and Production and SDG 17 – Partnerships for the Goals. In the video, Joyce Msuya of UNEP states, “... we cannot achieve the sustainable development goals without the sound management of chemicals and waste...”



The report is divided into the following sections, and interested readers can look at each section by following the hyperlinks [1]:

- [Introduction and key messages for policymakers](#)
- [Part I: The evolving chemicals economy: status and trends relevant for sustainability](#)
- [Part II: Where do we stand in achieving the 2020 goal – assessing overall progress and gaps](#)
- [Part III. Advancing and Sharing Chemicals Management Tools and Approaches: Taking Stock, Looking into the Future](#)
- [Part IV: Enabling policies and action to support innovative solutions](#)
- [Part V: Scaling up collaborative action under the 2030 Agenda for Sustainable Development](#)
- [Index](#)
- [Figures](#)

**The most important message is:**

**The global goal to minimize adverse impacts of chemicals and waste will not be achieved by 2020.  
Solutions exist, but more ambitious worldwide action by all stakeholders is urgently**

**Here are some of the key messages.**







1. The chemicals are deeply integrated with modern living – in agriculture, construction, electronics, textiles and pharmaceuticals to name a few.
2. The industry is growing, estimated to reach 10 Tr USD by 2030 from around 5 Tr USD in 2017.
3. Large and increasing amounts of hazardous chemicals, plastics and pharmaceutical waste continue to be released into our environment, causing accumulated threat.
4. Large chemical firms are trying to introduce:
  - sustainable supply chain management,
  - full material disclosure,
  - risk reduction beyond compliance, and
  - human rights-based policies.

However, widespread implementation of these initiatives has not yet been achieved.

5. Consumer demand, green and sustainable chemistry, education and innovation, etc. can be important drivers of change.
6. Global knowledge gaps need to be filled.

**The following Table [2] offers an indicative list of the linkages with the SDGs:**

Table 2: Integrating chemicals and waste management, and green and sustainable chemistry innovation, in relevant sectors: some opportunities

Sectors	SDG targets	Examples of opportunities for management and innovation
<b>Agriculture and food</b>	 Target 2.4: sustainable food production	<ul style="list-style-type: none"> <li>• Scale up integrated pest management and agro-ecological approaches, including development and use of non-chemical alternatives and other good agricultural practices</li> </ul>
<b>Health</b>	 Target 3.8: safe medicines and vaccines	<ul style="list-style-type: none"> <li>• Sound management of pharmaceuticals and disinfectants that contribute to antimicrobial resistance</li> </ul>
<b>Energy</b>	 Target 7.a: clean energy research and technologies	<ul style="list-style-type: none"> <li>• Improve technologies using resource-efficient, sustainable materials when decarbonizing the energy sector</li> </ul>
<b>Housing</b>	 Target 11.1: safe housing	<ul style="list-style-type: none"> <li>• Reduce indoor air pollution through safer insulation and replace building materials of concern (e.g. asbestos)</li> </ul>
<b>Education</b>	 Target 4.7: education for sustainable development	<ul style="list-style-type: none"> <li>• Mainstream green and sustainable chemistry into relevant curricula</li> </ul>
<b>Finance</b>	 Target 17.3: financial resources from multiple sources	<ul style="list-style-type: none"> <li>• Enhance use of green and sustainable chemistry metrics as criteria in investment</li> </ul>

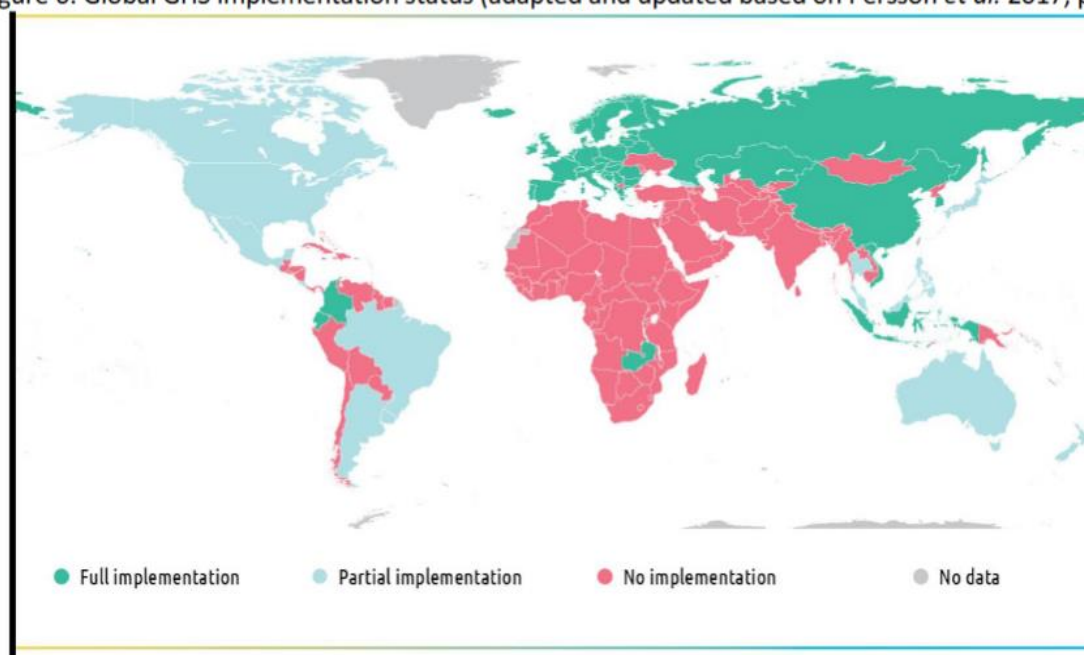
The opportunities, targets and sectors in this table are not exhaustive. Other relevant sectors include (but are not limited to) industrial production, technology and innovation, infrastructure development, transport, mining, tourism, labour, trade, development cooperation, and justice.

**Here are a few relevant extracts from the same report [2]:**

“Overall progress towards achieving the sound management of chemicals and waste is uneven across countries, regions and actors. In particular, developing countries and economies in transition, including some with chemical production facilities, still lack basic chemicals and waste management systems, including legal and institutional capacities, Pollutant Release and Transfer Registers, poison centres, and capacities for hazard and risk assessment and risk management. The GHS is not operational in more than 120 countries, mostly developing countries and economies in transition (see Figure 6).

The [GHS](#) is an acronym for The Globally Harmonized System of Classification and Labeling of Chemicals. It is a system for harmonizing hazard classification criteria and chemical hazard communication elements worldwide. Although India is shown under ‘No implementation’ category in the Figure 6 below, substantial work has been carried out in India under the Department of Chemicals and Petrochemicals, Government of India, as per the [Information Note](#). Detailed guidelines are available [here](#). [4] A draft chemical law, Chemical (Management and Safety) Rules (ICMSR) is under formulation.

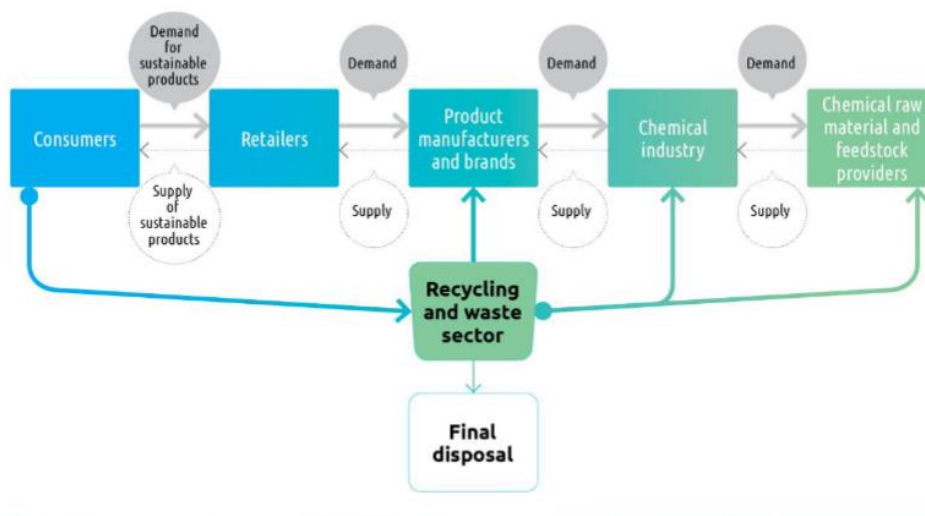
Figure 6: Global GHS implementation status (adapted and updated based on Persson *et al.* 2017, p. 8)



**The report further adds:**

“A growing number of retailers, product manufacturers and chemical companies have included sustainability objectives, sustainable supply chain management (see Figure 7), and extended producer responsibility in their corporate policies. Industry action to advance the transparent flow of information on chemicals and materials throughout the supply chain is also gaining momentum”.

Figure 7: Interface of demand and supply in driving the sustainability of chemicals in the supply chain



### References:

- [1] <https://www.unep.org/resources/report/global-chemicals-outlook-ii-legacies-innovative-solutions>
- [2] <https://wedocs.unep.org/xmlui/bitstream/handle/20.500.11822/35969/k1900123e.pdf>
- [3] [https://www.schc.org/assets/docs/ghs\\_info\\_sheets/schc\\_ghs\\_fs3\\_what\\_is\\_the\\_ghs.pdf](https://www.schc.org/assets/docs/ghs_info_sheets/schc_ghs_fs3_what_is_the_ghs.pdf)
- [4] <https://indianchemicalregulation.com/regulation/indian-cmsr/?cn-reloaded=1>

