



GLOBAL ENVIRONMENT FACILITY
INVESTING IN OUR PLANET

Chemicals and Waste





Artisanal miner crushing the selected high grade ore before using mercury to extract gold. Photo by Senderstas/Shutterstock

THE ISSUE

Harmful chemicals are found in all ecosystems on Earth, affecting human health, biodiversity, agricultural production, and water and air quality. Over 100 million human-made chemicals and chemical formulations are used in every sector of the economy.

Chemicals, such as persistent organic pollutants (POPs) and mercury, travel over large distances through air and water currents, and in migratory species. Some POPs can remain in the human body for more than 50 years. Mercury, an element, is infinitely persistent.

When used improperly or disposed of unsafely, chemicals pose significant risks for both the environment and human health. Scientists estimate that almost everyone's body carries chemical contaminants that have an unknown impact on their well-being.

Due to their global impact on human health and the environment, some of these highly dangerous chemicals require global

management. As a result, they are controlled by international law. Among the most significant agreements that cover chemical use and end-of-life management are the Stockholm Convention on Persistent Organic Pollutants, the Minamata Convention on Mercury, the Montreal Protocol on Substances that Deplete the Ozone Layer, the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, and the Rotterdam Convention on the prior informed consent procedure for certain hazardous chemicals and pesticides in international trade.

Despite advances under these agreements, the production, use, and disposal of chemicals are rapidly increasing in developing countries and countries in economic transition. These rapid changes increase economic opportunities, but they must be matched by enhanced programs and initiatives for sound chemicals and waste management. The cost to national economies of human and environmental exposure to

THE APPROACH

harmful chemicals is often unrecognized but can be substantial.

Complicating matters further, many manufacturers pursuing new materials and chemicals do not always sufficiently analyze the potential harmful impacts of their products before they are used commercially. This often results in significant harm to humans and the environment. For example, neonicotinoid pesticides—the most widely used insecticides in agriculture—have been linked to the decline in bee populations. Meanwhile, chemicals used to manufacture non-stick cookware have recently been banned under the Stockholm Convention due to their carcinogenic properties.

Technological barriers in the private sector often hinder the possibility of changing how chemicals are produced and managed. Small companies find it difficult to afford 'greener' practices.

The GEF is charged with financing the elimination of the most harmful chemicals, which are covered by the Stockholm Convention, the Minamata Convention, and the Montreal Protocol. The GEF also supports the Strategic Approach to International Chemicals Management (SAICM), the United Nations' policy framework to promote chemical safety around the world.

Many chemical products involve long global supply chains—from extraction of the necessary raw materials to use of chemicals in production processes, industry or in consumer goods, and finally, to disposal. Given such complex supply chains, end-of-life management of products and materials on its own is not sustainable. There is an urgent need to transform the use of

PROGRAMMING

chemicals along the entire supply chain of products, materials, and processes.

Safer and more sustainable materials and chemicals are needed in chemical design and manufacture. For example, most major electronics brands have already phased out or plan to phase out the use of brominated flame retardants, polychlorinated biphenyls (PCBs), and mercury in their products.

Demand for safer products, as well as systems for proper handling of those products that still contain harmful chemicals, will need to be strengthened. Some electronics companies have developed take-back systems for their products, both to handle the products safely and to extract recyclable materials and minerals.

Up to GEF-5 projects addressed single chemical such as DDT phase out or PCB management and single topic projects such as reduction of emissions from waste management. Since GEF-6, there has been an increasing share of projects that work across conventions and focal areas, including in the ASGM sector, textiles supply chain, ISLANDS and others.

From the pilot phase of the GEF up to March 2022, over \$2 billion has been programmed to support work on chemicals and waste in developing countries and countries with economies in transition.

The Chemicals and Waste portfolio has so far accomplished the following under the different conventions and processes:

Montreal Protocol: countries with economies in transition have phased out chlorofluorocarbon (CFCs) and are phasing out hydrochlorofluorocarbons (HCFCs).



Workers collect plastic waste. Photo by Amatullah Nurafifah/Shutterstock



Stockholm Convention: all relevant sectors have been funded. Higher levels of funding are programmed in priority areas, including PCB phase-out and management; dichloro-diphenyl-trichloroethane (DDT) phase-out; reduction and elimination of waste and stockpiles; environmentally sound management of POPs; and reduction and elimination of unintentionally produced POPs (UPOPs) from both industrial and open burning sources. The GEF has funded every eligible National Implementation Plan and continues to provide resources for the update of these plans as required by the Convention.

Minamata Convention: the GEF developed the guidance and framework of the Minamata Initial Assessments, which have been conducted by more than 116 countries. These enabling activity projects helped speed the ratification of the Convention and identify key priorities. In addition, the GEF has funded over 35 National Action Plans in the artisanal and small-scale gold mining sector. The plans help countries prioritize their management of mercury in this sector. The GEF has also addressed key sectors for the Convention, including primary mercury mining; phase-out of mercury in the production of chloroalkyl and vinyl chloride monomers; reduction of mercury emissions in the non-ferrous metals sector; and phase-out of mercury use in the production of medical devices, and support for introduction of mercury-free devices.

SAICM: work has focused on lead in paints, chemicals in products (including textiles), highly hazardous pesticides, and management of e-waste. Work under SAICM has helped mainstream these sectors within the larger Chemicals and Waste portfolio.

Plastics: The portfolio has historically addressed plastic pollution through preventing emissions of UPOPs. This work has targeted the poor incineration of waste, including e-waste, medical waste, and agricultural plastics. GEF-6 supported phasing out of chemicals in plastics, including polybrominated diphenyl ethers (PBDEs). In GEF-7, working both through the portfolio itself and with the international waters focal area, has taken a circular economy approach to address this issue.

RESULTS TO DATE¹

The GEF's implementation support for the chemicals and waste conventions provides an opening for Parties to meet their obligations. It also allows them to use the conventions as an entry point to transform their management of chemicals. Ultimately, through the conventions, Parties can use and produce chemicals without suffering their harmful impacts.

The GEF's work on chemicals and waste focuses on creating the enabling conditions and environments for the safe management of hazardous chemicals and waste; phasing out listed chemicals and introducing alternatives; eliminating stockpiles, and contaminating materials and products; and transforming supply chains to be circular and sustainable.

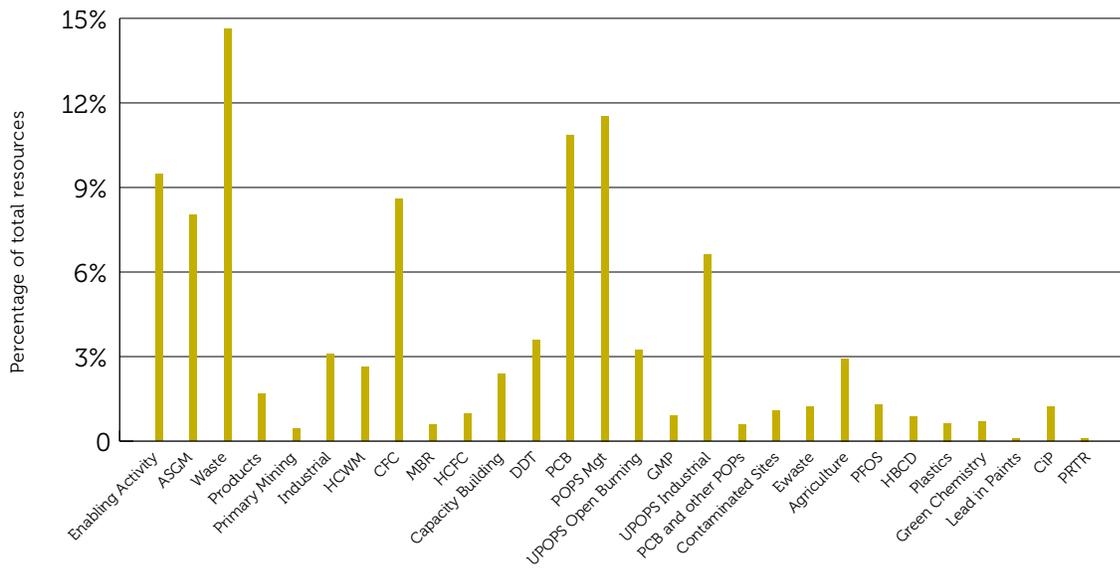
The chemicals and waste focal area has achieved significant results for the chemicals and waste conventions. It has also provided co-benefits to other conventions, including land degradation and climate change. Additionally, in GEF-7, the projects funded by the focal areas address over 4 million tons of plastic waste.

Major programs in the focal area include the Africa Stockpiles Programme, the global United Nations Environment Programme/ World Health Organization program related to reduced DDT use in malaria vector control; PAS: Pacific POPs Release Reduction Through Improved Management of Solid and Hazardous Wastes; Africa Environmental Health and Pollution Management Program; Mediterranean Sea Programme; Implementing Sustainable Low and Non-Chemical Development in Small Island Developing States (ISLANDS); planetGOLD, planetGOLD+ and FARM.

CORE/SUB INDICATOR	GEF-5	GEF-6	GEF-7	TOTAL
Landscapes under improved management (ha)			3,603,920	3,603,920
Marine litter (tons)			4,212,471	4,212,471
POPs (tons)	4,531	73,361	145,415	223,306
Mercury (tons)		260	2,349	2,609
ODS (tons)		213	580	793
Waste (tons)		96,774	5,219,862	5,316,636
UPOPs (gTEQ)		258	4,273	4,531
Tons CO ₂		383,173	1,340,511	1,723,684

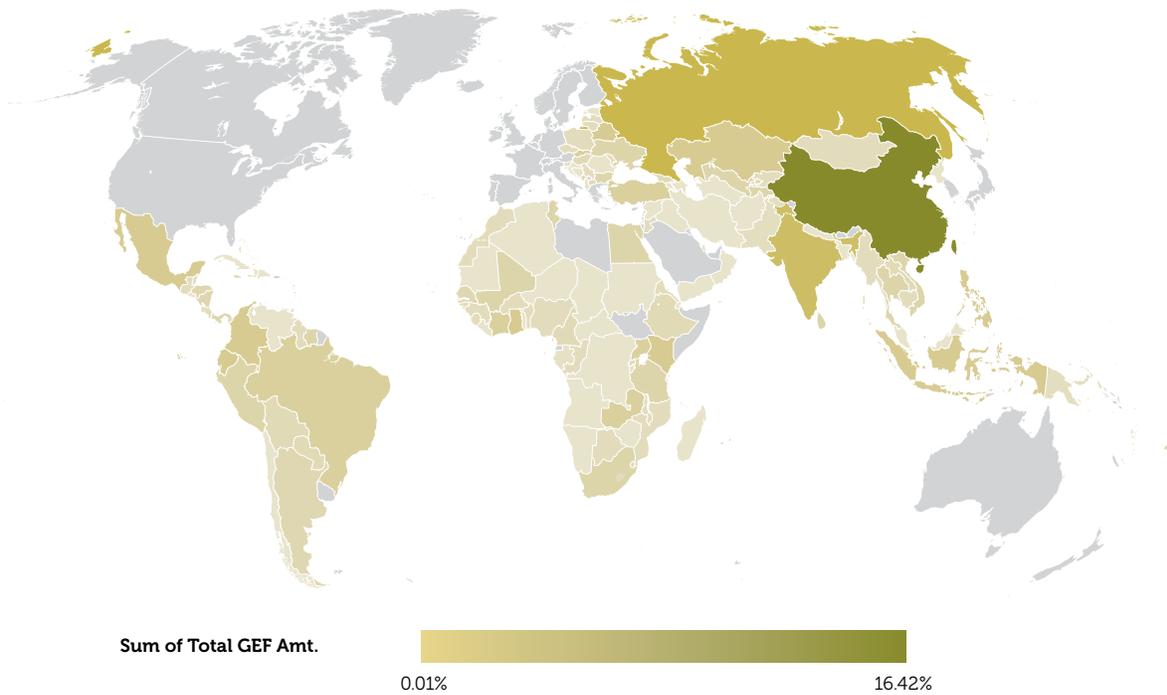
¹ Limited to achieved results so far in GEF-5 and GEF-6 and expected results in GEF-7.

Sectors Addressed



Parties Served

To date, **152 countries** have received funding from the GEF.





Cyclist riding on the red lanes exclusive for cyclists on the center of the avenue. Photo by Vinicius Bacarin/Shutterstock

LOOKING AHEAD

In GEF-8, as additional chemicals are added to the Stockholm Convention, key deadlines of the Minamata and Stockholm conventions are approaching. A post-2020 framework on SAICM is also in negotiation. Within this context, the focal area is expected to help countries tackle more complex supply chains in which listed chemicals are produced, used, and emitted. The GEF will provide support through three objectives in the chemicals and waste focal area and through several integrated programs. These include Eliminating Hazardous Chemicals from Supply Chains, Food, Cities, Major Biomes, Circular Solutions to Plastic Pollution, among others.

The objectives under which support will be channeled are as follows:

1. Creation, strengthening, and supporting the enabling environment and policy coherence to transform the manufacture, use, and sound management of chemicals and to eliminate waste and chemical pollution
2. Prevention of future buildup of hazardous chemicals and waste in the environment
3. Elimination of hazardous chemicals and waste.

The Global Environment Facility was established on the eve of the Rio Earth Summit to tackle our planet's most pressing environmental problems. Since then, it has provided more than **\$21.7 billion** in grants and mobilized an additional **\$119 billion** in co-financing for more than **5,000 projects** and programs. The GEF is the largest multilateral trust fund focused on enabling developing countries to invest in nature, and supports the implementation of major international environmental conventions including on biodiversity, climate change, chemicals, and desertification. It brings together 184 member governments in addition to civil society, international organizations, and private sector partners. Through its Small Grants Programme, the GEF has provided support to more than 26,000 civil society and community initiatives in 135 countries

