



GLOBAL ENVIRONMENT FACILITY
INVESTING IN OUR PLANET

Chemicals and Waste





THE ISSUE

Toxic chemicals are found in all ecosystems on Earth, including Antarctica and the most remote seas, affecting biodiversity, agricultural production, water quality, and human health. Over 100 million man-made chemicals and chemical formulations are used in every sector of the industrial economy.

Many chemicals, such as persistent organic pollutants (POPs) and mercury, travel over large distances through air, 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 just about every person on the planet carries within their body a large number of chemical contaminants that have an unknown impact on their well-being.

Due to the global impact on human health and the environment some of these highly dangerous chemicals are controlled by international law. Among the most significant agreements that cover the way chemicals are used and managed at the end of life are the Stockholm Convention on Persistent Organic Pollutants, the Minamata Convention on Mercury, and the Montreal Protocol on Substances that Deplete the Ozone Layer.

Despite the advances made 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 harmful chemicals is often unrecognized, but can be substantial.

Complicating matters further, in the pursuit of new materials and chemicals many manufacturers do not always conduct sufficient analysis of the potential harmful impacts of their products before they are used commercially, which often results in significant harm to humans as well as wild species and terrestrial, freshwater, and marine ecosystems. Neonicotinoid pesticides, for example, which are the most widely used insecticides in agriculture have now been linked to the current decline in bee populations.

Barriers in the private sector often hinder the possibility of change in the way chemicals are produced and managed. Small companies in particular find it difficult to afford 'greener' practices. Furthermore, scientists and regulatory agencies lack robust data and information on toxic chemicals, partly due to weak capacity in developing countries, which in turn affects the possibilities of bringing science-based reports to policy makers.

THE APPROACH

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 achievement of broader sound management of chemicals and waste through its support for the Strategic Approach to International Chemicals Management (SAICM), the United Nation's policy framework to promote chemical safety around the world.

Many chemical products in use today involve long and complex global supply chains that span from extracting the necessary raw materials, to the production process, to the use of the chemicals in industry or in consumer goods, and ultimately to their disposal. With such a global scale of materials, production, and consumption, simply dealing with products and materials at the end of life is not sustainable and there is an urgent need to transform the use of 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 already have phased out or plan to phase out the use brominated flame retardants, PCBs, and mercury in their products. Through SAICM, the GEF supports:

- The global phase out of the manufacture of lead-based paint
- Building capacity for management and disposal of e-waste
- Elimination of chemicals of global concern from the supply chain of commercial and domestic products
- Support to countries to control and prevent the unsafe use and disposal of highly hazardous pesticides

Demand for safer products as well as systems for proper handling of those products that will 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 effectively also to extract recyclable materials and minerals.

THE PROGRAM

The GEF has developed two key strategic objectives regarding chemicals and waste:

- Develop the enabling conditions, tools, and environment for the sound management of harmful chemicals and wastes;
- Reduce the prevalence of harmful chemicals and waste and support the implementation of clean alternative technologies/substances.

The implementation support for the chemicals and waste conventions by the GEF provides both the opportunity for Parties to these conventions to meet their obligations under the Conventions and to use the entry point of the Conventions to transform their management of chemicals and ultimately use and produce chemicals without suffering their harmful impacts. The GEF's work on chemicals and waste focuses on four main programs in GEF-7:

The *Industrial Chemicals Program* seeks to eliminate or significantly reduce chemicals subject to international agreements by supporting programs that address: chemicals and waste at the end of life; chemicals that are used or emitted from or in processes and products; and management of waste containing these chemicals.

The *Agricultural Chemicals Program* addresses the agricultural chemicals that are listed as persistent organic pollutants under the Stockholm Convention and agricultural chemicals that contain mercury or its compounds. Where the chemicals are in use, the GEF fosters efforts to introduce alternatives.

The *Least Developed Countries and Small Island Developing States Program* addresses the sound management of chemicals and waste through strengthening the capacity of sub-national, national, and regional institutions and strengthening the enabling policy and regulatory framework in these countries.

The *Enabling Activities Program* supports enabling activities under the Stockholm Convention and the Minamata Convention, and supports global monitoring of chemicals.



EXPECTED RESULTS

In GEF-7, \$599 million have been allocated to the Chemicals and Waste focal area. The GEF will facilitate the reduction of chemicals through stronger alignment with the shift to sustainable production and consumption.

Over the next four years the GEF will also seek stronger private sector engagement, and will support the enabling environments for industry to adopt better technologies and practices aimed at becoming more environmentally sustainable, including eliminating POPs and mercury, careful consideration of the incentives for private sector involvement, and streamlined processes for easier private sector navigation. The GEF will emphasize efforts to develop sustainable financing at the national/regional level to sustainably eliminate chemicals covered under the Conventions, and at the same time facilitate the sound management of chemicals and waste. To be able to make the transition of a chemical based approach to a sector/economic approach the GEF-7 programs seek to integrate the individual chemical convention issues into a sector-based approach that better aligns with national level efforts to improve the industry. The work of the conventions can thus be better integrated into national level agricultural policy, industrial manufacturing, and pollution management.

The GEF has responded to new chemicals conventions and the movement towards integration and synergies among the conventions by evolving its strategy to accommodate these transitions. The newest convention supported by the GEF is the Minamata Convention on Mercury. As the convention has now entered force, the GEF-7 strategy will support eligible countries to implement the convention obligations. In GEF-7, funding for the chemicals and waste focal area received an 8 percent increase over GEF-6.

THE WAY FORWARD

Coordinated actions at international, national, regional, corporate, and civil society levels are urgently needed so that individuals and institutions understand that the sound management of chemicals throughout their life cycle is essential.

The question is whether the existing global architecture for chemicals management is robust enough to transform the way chemicals are produced and used.

More and more chemicals are being produced and put into everything people consume, from cell phones to food and drinking water. At the same time, however, industry itself is beginning to shift to more sustainable 'green' supply chains and manufacturing. How can the chemicals industry accelerate this switch? What are the challenges ahead, and what innovations and global

coalitions are needed? The GEF is a catalyst for both governments and the private sector as they address these questions and work to eliminate or reduce harmful chemicals and waste. GEF's programming strategy for chemicals and waste builds on its past work in policy and priority setting, piloting technologies and techniques to build best practices, and progressively working with the private sector to help foster sound management of chemicals and waste. To achieve transformational change, GEF projects seek closer integration with the private sector and global supply chains. GEF's Global Opportunities for Long-term Development in the Artisanal Scale Gold Mining sector (GOLD) program, for example, offers a new model for unlocking resources to address mercury pollution from gold mining and has strong private sector engagement, including major jewelers, electronics manufacturers, gold refiners, and commercial banks. The GEF can help to convene the relevant stakeholders and function as an honest broker in facilitating the work needed to help transform the chemicals industry and related products and materials streams. GEF-7 will explore the important synergies between the International Waters and the Chemicals and Waste focal areas to address specifically the challenge of marine litter and micro-plastics. Waste consisting of plastics can contribute to the POPs challenge as POPs contained in plastics can be released in the environment including oceans, if not properly managed. Marine litter in the form of micro-plastics to a significant extent derives from land-based activities and should also be seen in the context of waste management issues dealt with under this focal area. Recognizing the need to transform the entire life cycle of plastics to reduce marine plastic pollution, the GEF will invest in a few strategic Circular Economy initiatives to promote the adoption of closed loop production and consumption patterns instead of traditional linear take-make-waste approaches. Investments will be focusing on public/private investments to transform the plastic life cycle.

The Global Environment Facility was established on the eve of the 1992 Rio Earth Summit to help tackle our planet's most pressing environmental problems. Since then, the GEF has provided **over \$17.9 billion in grants and mobilized an additional \$93.2 billion in co-financing** for more than **4500 projects in 170 countries**. Today, the GEF is an international partnership of 183 countries, international institutions, civil society organizations and the private sector that addresses global environmental issues.

