



GLOBAL ENVIRONMENT FACILITY  
INVESTING IN OUR PLANET

# Chemicals and Waste





## 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 man-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, 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 their global impact on human health and the environment, some of these highly dangerous chemicals require global management and as a result 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, 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 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 and the environment. Neonicotinoid pesticides, for example, which are the most widely used insecticides in agriculture, have been linked to the current decline in bee populations and 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 change in the way chemicals are produced and managed. Small companies in particular find it difficult to afford 'greener' practices.

## 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 of brominated flame retardants, 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 also to extract recyclable materials and minerals.

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.

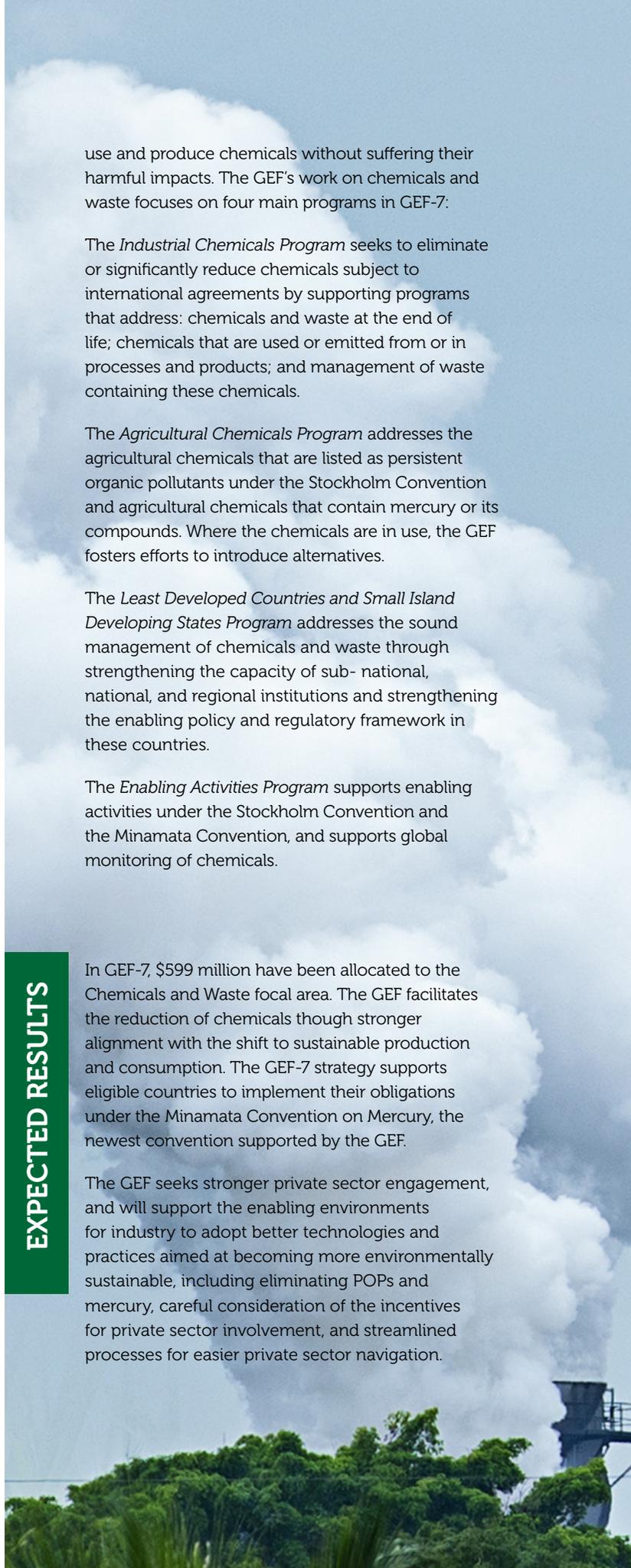
The *Enabling Activities Program* supports enabling activities under the Stockholm Convention and the Minamata Convention, and supports global monitoring of chemicals.

In GEF-7, \$599 million have been allocated to the Chemicals and Waste focal area. The GEF facilitates the reduction of chemicals through stronger alignment with the shift to sustainable production and consumption. The GEF-7 strategy supports eligible countries to implement their obligations under the Minamata Convention on Mercury, the newest convention supported by the GEF.

The GEF seeks 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.

## EXPECTED RESULTS

## THE PROGRAMS



## THE WAY FORWARD

The GEF emphasizes efforts to develop sustainable financing at the national/regional level to eliminate chemicals covered under the Conventions, and at the same time facilitate the sound management of chemicals and waste. The GEF-7 programs seek to integrate the individual chemical convention issues into a sector-based approach that better aligns with national level agricultural policy, industrial manufacturing, and pollution management.

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.

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. 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.

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 successful 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.

ISLANDS is a new GEF-funded program with projects across 30 different island countries, which will help nations in the Caribbean, Pacific, and Indian Oceans

avoid marine litter and tackle such difficult issues as the management of electronics and vehicles once they reach their end of life. As the economies and populations of island states grow, the amount of waste they produce grows too, but waste management systems often fall behind. The GEF will provide \$66 million of support for the program to eliminate 27,000 tons of products containing chemicals of concern and to prevent the future build-up of such chemicals. It is estimated that the program will benefit 6 million people worldwide and avoid 200,000 tons of litter from entering the oceans.

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, which, if not properly managed, can release POPs into the environment. 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 strategic Circular Economy initiatives to promote the adoption of closed loop production and consumption patterns. 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 **\$19.2 billion** in grants and mobilized an additional **\$101.4 billion** in co-financing for more than **4,700 projects** in **170 countries**. In addition, under the Small Grants Programme, the GEF has financed 23,991 projects in 128 countries.

