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GEF Interventions in the Chemicals and Waste Focal Area

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GEF Interventions in the Chemicals and Waste Focal Area

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Foreword

The Independent Evaluation Office of the Global Environment Facility (GEF) is pleased to present the Evaluation of Chemicals and Waste, covering GEF support since GEF-5. The evaluation was shared with the GEF Council, which took note of its conclusions and endorsed its recommendations in light of management's response.

As the financial mechanism for the Stockholm Convention on Persistent Organic Pollutants and the Minamata Convention on Mercury, the GEF plays a central role in supporting countries in addressing chemical pollution and hazardous waste management. Over time, the chemicals and waste portfolio has evolved from a focus on individual substances, such as PCBs, pesticides, and mercury, toward more integrated, sectorwide approaches introduced in GEF-7 and GEF-8 that address chemicals across their life cycle and supply chains.

This evaluation assessed the relevance, performance, and sustainability of the portfolio. It found that the GEF has been instrumental in supporting convention implementation and strengthening national legislative and institutional frameworks. Integrated programming

has enhanced pollution prevention and private sector engagement, particularly where supported by strong regulatory frameworks. At the same time, persistent challenges remain, including high costs of alternatives, limited institutional capacity, funding delays, and insufficient attention to legacy chemicals in some contexts.

The evaluation underscores the importance of maintaining integrated approaches while ensuring continued support for legacy pollution challenges. It also highlights the need to strengthen measurement of health and socioeconomic co-benefits and to sustain private sector engagement to support durable, transformational change. Through this report, the Independent Evaluation Office aims to inform future GEF investments and contribute to learning in chemicals and waste management.

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Abbreviations

APR	annual performance report	NIP	national implementation plan
ASGM	artisanal and small-scale gold mining	ODS	ozone-depleting substances
BAT/BEP	best available techniques and best environmental practices	OPS	comprehensive evaluation of the GEF (previously overall performance study)
CEO	Chief Executive Officer	PCB	polychlorinated biphenyl
COP	conference of the parties	PFOS	perfluorooctane sulfonate
DDT	dichlorodiphenyltrichloroethane	POP	persistent organic pollutant
EPR	extended producer responsibility	SIDS	small island developing states
FAO	Food and Agriculture Organization of the United Nations	UNDP	United Nations Development Programme
FARM	Financing Agrochemical Reduction and Management	UNEP	United Nations Environment Programme
GEF	Global Environment Facility	UNIDO	United Nations Industrial Development Organization
IEO	Independent Evaluation Office	UPOP	unintentional persistent organic pollutant
M&E	monitoring and evaluation	WEEE	waste electrical and electronic equipment

Executive summary

Chemicals have played a pivotal role in enhancing the quality of life for people worldwide. From fertilizers to pharmaceuticals, and in 95 percent of manufactured goods, chemicals are fundamental (WEF 2023). However, the widespread use of chemicals presents significant challenges, particularly in managing their waste and disposal, which can have detrimental effects on the environment. This has led to air, water, and soil pollution, with severe consequences for human health and biodiversity. Harmful chemicals, including persistent organic pollutants (POPs), like polychlorinated biphenyls (PCBs) and dichlorodiphenyltrichloroethane (DDT), and mercury, continue to be detected despite ongoing phaseout efforts managed by the Stockholm and Minamata Conventions, for which the Global Environment Facility (GEF) serves as the financial mechanism.

This evaluation assesses the relevance, effectiveness, and sustainability of GEF interventions in the chemicals and waste sector. Building on prior assessments by the GEF Independent Evaluation Office (IEO) of the chemicals and waste focal area, it examines the alignment of these interventions with international conventions and the needs of participating countries, as well as their consistency with GEF strategies and programming directions. The evaluation provides an in-depth analysis of the GEF's efforts to reduce pollution from POPs and mercury. It also evaluates the design and relevance of recent projects that reflect a strategic shift toward sector-based approaches. The portfolio under review includes 487 projects, representing \$1.8 billion in grant

funding and \$12.7 billion in cofinancing, covering the period from GEF-5 to GEF-8. To [ground-truth](#) the findings, the IEO team conducted case studies in Indonesia, North Macedonia, Senegal, Trinidad and Tobago, Uruguay, and Viet Nam.

Findings and conclusions

The GEF has moved from focusing on individual chemicals, such as PCBs, pesticides, and mercury, toward a broader, sectorwide approach. The GEF chemicals and waste portfolio demonstrates a clear shift toward integrated programming, as seen by the increasing allocation of funding to programs and child projects from GEF-5 to GEF-8. An integrated approach to programming is essential for effective chemicals and waste management, particularly in sectors like textiles and food packaging, where chemicals are used extensively throughout the supply chain. The GEF's focus on addressing chemicals at every stage is appropriate and crucial to prevent the proliferation of harmful substances and in ensuring sustainable practices across industries. Without a coordinated effort across the GEF, countries, and the conventions, resources risk being spread too thin, diminishing the impact on overall sustainability goals.

Although this shift presents substantial advantages, it has also led to a reduced focus on legacy chemicals in recent projects, potentially reflecting the changing priorities of national agendas. Despite the decrease in single-chemical initiatives, many countries still urgently need assistance to safely manage and dispose of PCBs to meet

the 2028 Stockholm Convention deadline, as well as help with other legacy chemicals to combat pollution and enhance public health. The shift to a sectorwide approach risks creating a critical gap in targeted chemical management support at a time when it is most essential.

The GEF chemicals and waste focal area plays a critical role in helping countries fulfill their obligations under the Stockholm and Minamata Conventions, as well as the Montreal Protocol and the Global Framework on Chemicals. While countries value the GEF's support, challenges persist in accessing finance and obtaining assistance for submitting national implementation plans and Minamata initial assessments from the GEF Agencies. Streamlining access to funding and providing stronger support for countries in navigating these key processes is necessary to maximize impact.

Private sector involvement has been vital for the sustainability of GEF chemicals and waste projects, yet persistent challenges remain to be addressed for broader success. Engaging the private sector remains essential for ensuring long-term impact. The GEF's market-oriented strategies, combined with local business participation and technology transfer, have driven transformational change—especially when supported by enabling legislation that facilitates scaling. In some instances, sustainability was ensured through a combination of GEF financing, government legislation or subsidies, certification schemes, or partnerships with international firms. However, resistance from industries facing intense competition—such as textiles and plating—and the absence of formal collaboration frameworks for knowledge sharing have hindered progress. Addressing these barriers, being more inclusive of small and medium enterprises, and fostering stronger, more structured private sector engagement are key to enhancing the effectiveness and outcomes of future programs and projects.

Smaller firms and chemical suppliers are often overlooked in broader interventions. In developing countries, the textile and apparel industry is predominantly composed

of small and micro enterprises, which face significant challenges in adopting sustainable practices due to limited financial resources and technical expertise. Smaller chemical suppliers, which play a critical role in ensuring sustainability across the supply chain, are often overlooked in broader GEF interventions. For industrywide transitions to eco-friendly practices, targeted support for these smaller players is essential. Addressing high-cost barriers and involving suppliers more actively will enable smaller firms to better manage chemicals and adopt sustainable practices across the supply chain. Additionally, there are gaps in certification and labeling of chemicals produced by suppliers that need to be addressed.

GEF projects demonstrate that successful technological innovation in chemicals and waste management involves more than installing new equipment. While advancements in green chemistry—substituting harmful chemicals with safer alternatives—have been effectively implemented, investments in imported machinery designed to reduce or eliminate harmful chemicals have faced significant challenges. These challenges include underutilization of equipment due to insufficient training, lack of technical knowledge, inadequate budgets for maintenance, and supply chain constraints. Ensuring the effectiveness and sustainability of such investments will require that projects prioritize capacity building and training, and provide adequate financial resources for ongoing operations and future sustainability.

For instance, Senegal's Environmentally Sound Management of Municipal and Hazardous Solid Waste to Reduce Emission of Unintentional POPs (GEF ID 4888, United Nations Industrial Development Organization) project financed the construction of various facilities in Tivaouane. These included an electronic equipment collection and dismantling center, an environmentally sound landfill, and a medical waste autoclave. However, none of the machinery is being used as originally intended. Garbage has piled up, and informal workers are left to manually sort the waste, pointing to a lack of formalization. This outcome highlights the critical need

to engage local stakeholders during project design, cultivate a sense of ownership, and develop long-term capacities to ensure that newly installed machinery is effectively utilized and maintained.

Strong legislative frameworks are crucial for the success of chemicals and waste management projects, but enforcement and outcomes vary widely across countries. Laws such as those covering extended producer responsibility play a key role in securing private sector engagement; setting adequate tariffs for waste collection companies helps maintain consistent service delivery. Legislation has played a crucial role in scaling up pollution prevention. Additionally, formalizing the role of informal waste pickers or banning their involvement in electronic waste collection is vital for reducing health risks and environmental harm. Inconsistent enforcement of these legal measures in some countries has posed significant challenges, ultimately diminishing the effectiveness and sustainability of project outcomes.

The GEF can play a pivotal role in fostering policy coherence. Key approaches toward this include promoting interministerial collaboration and enhancing enforcement and coordination among government agencies (where there is country appetite and capacity), and project designs that encourage coherence. Through GEF financing, ministries with diverse, sometimes conflicting, mandates are incentivized to collaborate, overcoming barriers to cooperation. This alignment enables ministries to address complex environmental challenges in a coordinated manner, rather than working at cross purposes. The GEF has helped promote policy coherence by fostering collaboration across ministries through innovative project designs including facilitating national dialogues, supporting legislative development, organizing study tours for ministerial staff to learn from other countries, and engaging in awareness-raising and knowledge transfer initiatives. In some smaller countries, the GEF has been less successful in driving policy coherence primarily due to government departments feeling overstretched to take on coordination.

Efforts to achieve socioeconomic outcomes and health co-benefits in GEF projects have grown, but quantifying health co-benefits remains challenging given the absence of indicators and the long-term nature of health impacts. The GEF's current approach to tracking socioeconomic co-benefits is limited, revealing the need for a stronger results framework. The evaluation found that the GEF lacks standardized indicators for measuring socioeconomic co-benefits, which are inconsistently integrated into project design and monitoring processes. A key challenge is that the GEF lacks a mandate to measure health benefits, which are long-term outcomes that often extend beyond the typical project timeline. Coordination between agencies that collect information on chemical prevalence and the GEF could be utilized to report on environmental outcomes such as chemical pollution that have implications for health outcomes.

GEF projects show progress in gender awareness, but need stronger support for women's health and safety. The evaluation found a rise in gender-aware GEF projects that recognize distinct roles and address gender inequalities, but progress in fully gender-mainstreamed projects remains limited. Gender-disaggregated data highlight the heightened vulnerability of women, especially pregnant women, to chemical pollution. Although women's participation in workshops and training is noted, there is a need for stronger measures, including health checkups, safety equipment, and stricter regulatory enforcement, particularly for informal female workers.

The GEF's focus on the food and beverage supply chain, particularly at the end-of-life stage, highlights the effectiveness and sustainability of prevention over remediation. Allowing plastics and packaging waste to accumulate in landfills leads to carbon dioxide and methane emissions, costly geoengineering, and the risk of toxic leakage. This is due to a combination of factors, including limited public awareness, insufficient government involvement in waste management and recycling systems, inadequate legislation, and a lack of education on recycling practices. The GEF's preventative approach, including

recycling, composting, and waste reduction, has proven to be sustainable when imported or local technologies are supported by adequate technical capacity and financing. Additionally, integrating informal waste pickers into formal waste management systems enhances both environmental outcomes and social equity, creating a more comprehensive and inclusive strategy for waste management. The GEF's progression toward upstream prevention represents a significant evolution from GEF-5 to GEF-8.

The GEF's efforts to tackle mercury pollution through recent interventions in areas such as dental amalgam and skin-lightening products emphasize the need for focusing on supply as well as behavior change. Dental amalgam—a significant source of mercury pollution, particularly through improper waste disposal—requires both technical solutions, such as safe disposal facilities, and education for dentists on proper disposal techniques. The GEF is collaborating with customs authorities to prevent illegal imports of mercury, funds educational campaigns, and is supporting assessments of amalgam use in dentistry. Similarly, skin-lightening products remain a persistent source of mercury contamination, despite bans imposed by the Minamata Convention. In this area, the GEF is working on building awareness and with smaller family-owned enterprises producing such products. However, success in reducing mercury use in dental amalgam and skin-lightening products will ultimately depend on both—driving behavior change through awareness raising and supply chain interventions such as better labeling and supporting import bans.

Recommendations

- **Strengthen the focus on policy and regulatory reforms, awareness, and communication within chemicals and waste projects and programs.** The GEF should strengthen its focus on comprehensive policy and regulatory reforms, alongside heightened public awareness and communication efforts. Effective reforms require robust regulatory frameworks, supported by widespread public education campaigns to drive behavioral change, and enhanced enforcement mechanisms to ensure compliance.
- **Strengthen regulatory frameworks and further engagement with the broader private sector, including small and medium enterprises, to enhance project sustainability in chemicals and waste-related projects and programs.** Regulatory reforms and compliance with international standards play a crucial role in encouraging private sector participation in chemicals projects. The GEF should assist with reforms including formalizing the informal sector, enforcing antipollution laws, and legislating extended producer responsibility. In addition to strengthening regulatory frameworks, the GEF should continue to ensure the financial viability and technical capacity of small and medium enterprises through investments in advanced technologies and other forms of capacity-building support.
- **Ensure that investments in autoclaves, laboratory equipment, and other machinery for chemicals and waste management associated with indigenous or imported technologies are fully utilized.** Local capacity must be addressed to ensure that technical skills of personnel are locally available, thereby minimizing the risk of underutilization. To ensure sustainability, it is essential that personnel receive adequate training, spare parts are readily accessible, and sufficient budgets are allocated for ongoing operation and maintenance.
- **Integrate health co-benefit indicators into project designs and the design and monitoring frameworks.** The GEF should, where relevant, incorporate health co-benefit indicators into project design and monitoring frameworks to better capture the impacts of its interventions. By adopting quantifiable indicators, these co-benefits can be effectively measured and tracked across projects. Greater emphasis on these indicators during project design will ensure that they are clearly defined within the project description, results framework, and theory of change, thereby enhancing the GEF's ability to demonstrate both environmental and health-related outcomes.



1

Introduction

1.1 Background

Chemicals have played a pivotal role in enhancing the quality of life for people worldwide. From fertilizers to pharmaceuticals, and in 95 percent of manufactured goods, chemicals are fundamental (WEF 2023). For instance, chemicals such as fertilizers and pesticides significantly boost crop yields, contributing to food security and economic growth in the agricultural sector (Tilman et al. 2002). In health care, chemicals are essential for the development of medicines, vaccines, and medical devices that improve health outcomes and increase life expectancy (Li and Corey 2013). Chemicals are also crucial in various industrial processes, from plastics to electronics, thereby enhancing manufacturing efficiency and product quality (Carragher 2017).

The global chemicals market has seen substantial growth over the past two decades. In 2022, global chemical sales reached approximately EUR 5.4 trillion (\$5.9 trillion), a significant rise from EUR 1.5 trillion (\$1.6 trillion) in 2002—an increase of 260 percent over 20 years (Cefic 2023). China led the global chemicals market in 2022, followed by Europe and the United States (Hermann 2024). In Europe, petrochemicals accounted for 27 percent of the chemicals industry in 2018, a figure expected to grow in the coming years (IEA 2018).

However, the widespread use of chemicals presents significant challenges, particularly in managing their waste and disposal, which can have detrimental effects on the environment. Chemical waste and disposal has led to air, water, and soil pollution, with severe consequences for human health and biodiversity. Additionally, the chemicals sector is the largest industrial energy consumer and the third-largest emitter of carbon dioxide, further exacerbating environmental concerns (WEF 2023). Harmful chemicals—including persistent organic pollutants (POPs) like polychlorinated biphenyls (PCBs), perfluorooctane sulfonate (PFOS), dichlorodiphenyltrichloroethane (DDT), and mercury—continue to be detected, despite ongoing phaseout efforts managed by the

Stockholm Convention on POPs and the Minamata Convention on Mercury. These efforts are comparable to the management of the phaseout of ozone-depleting substances (ODS) under the Montreal Protocol Montreal Protocol on Substances That Deplete the Ozone Layer.

Chemicals contribute to various forms of waste and pollution.

For instance, according to the United Nations Environment Programme (UNEP), approximately 400 million metric tons of plastic are produced globally each year,¹ with 11 million metric tons ending up in the oceans (Zhu et al. 2024). Despite these vast quantities, only about 9 percent of plastic is recycled, while 50 percent is disposed of in landfills (OECD 2022b). This evaluation does not cover plastics in detail but references them in the context of waste management.

Electronic waste is another growing source of pollution, releasing toxic chemicals when not properly recycled.

In 2022 alone, around 62 billion kilograms of electronic waste were generated globally (UNITAR and ITU 2024). In developing countries, electronic waste is often handled by informal workers who extract valuable metals while discarding the remaining parts in landfills or through open burning; this poses serious risks to both their health and the environment.

For the Global Environment Facility (GEF), chemicals and waste are defined by specific international conventions and agreements.

For the GEF, “chemicals” refer to chemicals controlled under the Stockholm Convention, the Minamata Convention, and the Montreal Protocol as well as those covered by the Global Framework on Chemicals.² “Waste” refers to waste generated from the production, use, and consumption of the chemicals covered by the multilateral environmental agreements for which the GEF is the financial mechanism, and other harmful

¹UNEP, [Plastic pollution](#) web page, accessed August 2024.

²Since the fifth International Conference on Chemicals Management in 2023, the Global Framework on Chemicals has superseded the Strategic Approach to International Chemicals Management (SAICM).

wastes under the control of the Montreal Protocol and the Global Framework on Chemicals.

As the financial mechanism for the Stockholm Convention and the Minamata Convention, the GEF has long focused on eliminating hazardous chemicals and waste globally.

Since its inception, the GEF has focused on helping countries eliminate hazardous chemicals and waste, including POPs listed under the Stockholm Convention, such as pesticides as well as PCBs and other unwanted byproducts of industrial processes. The GEF has also supported the Minamata Convention and the Global Framework on Chemicals by funding initiatives to reduce mercury emissions, address highly hazardous pesticides, and eliminate lead in paint.

The GEF also provides funding to support implementation of the Montreal Protocol and aligns with strategic objectives under the Global Framework on Chemicals that require coordinated global action.

By doing so, it plays a catalytic role in mobilizing budgetary resources from national governments and encouraging greater private sector involvement in efforts to eliminate and reduce harmful chemicals and waste. The GEF also contributes to the achievement of Sustainable Development Goal (SDG) 12, which focuses on ensuring sustainable consumption and production patterns by promoting a systematic approach to managing chemicals throughout their life cycle.

The GEF’s support for chemicals and waste has evolved from single-chemical initiatives to a broader, integrated, sectoral approach.

GEF support for chemicals and waste began in 1995 when it financed ODS activities. In 2001, the GEF became the financial mechanism for the Stockholm Convention. During GEF-6, the GEF, acting as part of the financial mechanism for the Minamata Convention and responding to requests from the International Conference on Chemicals Management to support the objectives of the Global Framework on Chemicals, merged the ODS and POPs focal areas. This consolidation, along with the inclusion of the Minamata Convention and the Global Framework on Chemicals, formed the GEF’s new chemicals and waste focal area.

With the programmatic strategies of GEF-7 and GEF-8, the GEF shifted from a single-chemical focus, such as on POPs or mercury, to an integrated sectoral approach that addresses chemicals throughout their entire life cycle and supply chains. This transition represented a pivotal shift in the design of programs and projects beginning with GEF-7.

The GEF has invested significantly in addressing chemicals and waste through a range of approaches. With a portfolio of 487 chemicals and waste projects amounting to \$1.8 billion in grant funding and \$12.7 billion in cofinancing from GEF-5 to GEF-8,³ the GEF has addressed chemicals and waste through various approaches. Specifically, GEF-funded chemicals and waste projects focus on

- Creating, strengthening, and supporting the enabling environment and promoting policy coherence to transform the manufacture, use, and sound management of chemicals while reducing waste and chemical pollution;
- Preventing the future accumulation of hazardous chemicals and waste in the environment; and
- Eliminating existing hazardous chemicals and waste.

This evaluation examined the relevance, effectiveness, and sustainability of GEF interventions in chemicals and waste. It builds on previous Independent Evaluation Office (IEO) assessments of the chemicals and waste focal area, examining the relevance of interventions to international conventions and participating countries, while also assessing their alignment with GEF strategies and programming directions. It provides an in-depth analysis of GEF support in reducing POPs and mercury. Since GEF-7, the chemicals and waste focal area has expanded its scope to address a wider range of chemicals and materials, including hazardous chemicals in

³Focal area financing and cofinancing amounts under GEF-8 are expected to increase, as this evaluation portfolio only includes projects up to June 2024.

the agricultural sector, lead in paints, and chemicals of concern across various industries such as fashion and textiles and construction, and hard-to-manage plastics.

1.2 Findings from previous IEO evaluations

Key findings from the 2018 GEF IEO chemicals and waste focal area study emphasized the importance of financial and institutional mechanisms for scaling up efforts. That evaluation assessed grant funding for activities targeting POPs, ODS, and mercury, as well as broader aspects of sound chemicals management (GEF IEO 2018a). It focused on activities carried out since the chemicals and waste focal area had been formally established under GEF-5, with implicit coverage of PCB waste and obsolete pesticides. The evaluation highlighted the ongoing need for diligence and innovation in this area. Although many projects had successfully achieved their short-term objectives, such as the collection and destruction of POPs, they had often failed to establish sustainable strategies or financial mechanisms to scale up these results.

The Sixth Comprehensive Evaluation of the GEF (OPS6) cited a strong alignment between the GEF's chemicals and waste focal area and its associated conventions (GEF IEO 2018b). OPS6 noted that the chemicals and waste focal area is well aligned with the conventions for which it serves as the financial mechanism—the Stockholm Convention on POPs and the Minamata Convention on Mercury—as well as the Montreal Protocol on Substances that Deplete the Ozone Layer), for which the GEF is not an official financial mechanism but supports its implementation in countries with economies in transition. OPS6 found that chemicals and waste projects contributed to reducing environmental stress, and that strong government ownership and active private sector engagement were important elements of success.

OPS6 emphasized the need for tailored strategies and sector-wide approaches in the GEF’s chemicals and waste initiatives.

It highlighted the need for the GEF to enhance its chemicals and waste strategies by better tailoring them to the specific development status of countries, whether they are middle-income countries, least developed countries, or small island developing states (SIDS). The evaluation also emphasized the need for sector-wide approaches and multichemical projects, and the need to better align incentives and scope to support these approaches. Additionally, balancing hard outcome targets (e.g., tons of POPs and mercury disposed of) with soft outcomes (e.g., policy reforms and institutional capacity building) was highlighted as a persistent challenge.

OPS7 noted limited integration of chemicals and waste objectives into broader GEF impact programs (GEF IEO 2022c).

OPS7 also noted the shift from a chemicals-specific approach to a broader sectoral strategy. However, it found that the integration of chemicals and waste objectives into the GEF’s integrated approach pilots and impact programs was limited. Of the 43 impact program child projects submitted by the time of OPS7, only 1 included a target aligned with the chemicals and waste focal area indicators. Additionally, no progress had yet been reported on the environmentally safe disposal of obsolete pesticides in relation to GEF-5 targets.

The IEO evaluation of GEF interventions in the artisanal and small-scale gold mining (ASGM) sector found that these interventions were successful in reducing mercury use in project areas and in catalyzing miner formalization (GEF IEO 2022b).⁴

These reductions were most effective in areas with strong government enforcement of mercury restrictions and in larger gold-processing plants that had the capacity to invest in mercury-free alternatives. However, the most common substitute for mercury

⁴Miner formalization is the process of integrating artisanal and small-scale mining into the formal economy, society, and regulatory system.

was a process involving another contaminant—cyanide—which can also be harmful if not properly managed. Although significant miner formalization was not achieved during project implementation, capacity-building and awareness-raising efforts led to increased formalization after project completion in countries including Peru and the Philippines (GEF IEO 2022b).

1.3 Objectives, scope, and methodology

This study aims to evaluate the relevance and effectiveness of GEF support in the chemicals and waste focal area between GEF-5 and GEF-8.

Its main objective is to assess the relevance, performance, and effectiveness of GEF support in the chemicals and waste focal area through a deep dive into closed projects. It also provides an early look into the design and performance of ongoing interventions to assess the shift in programming from a chemical-by-chemical approach to an integrated sectoral approach.

The evaluation examines GEF interventions approved and implemented from GEF-5 to GEF-8, focusing on closed projects and ongoing ones with midterm reviews.

The evaluation covers projects with chemicals and waste, POPs, or ODS listed in their focal area; projects with core indicator targets that are relevant to chemicals and waste; and projects that include relevant chemicals and waste activities outside the focal area. The evaluation primarily focuses on 72 closed chemicals and waste projects with terminal evaluation documents—51 of which were included in the IEO’s 2023 Annual Performance Report (APR) data set; see [annex A](#)—evaluating their effectiveness and efficiency. Additionally, it examines the quality at entry of 219 ongoing GEF-5, GEF-6, GEF-7, and GEF-8 projects, with detailed document reviews for 80 ongoing projects (37 percent).

The [concept note](#) for this IEO evaluation of the chemicals and waste focal area, including evaluative questions is available on the GEF IEO website, with key highlights elaborated below.

The evaluation draws on existing GEF IEO evidence, reviews of terminal evaluations, and country case studies for comprehensive analysis. This includes evaluative evidence generated by the GEF IEO and the GEF Agencies. It includes a review of terminal evaluations and midterm reviews completed by GEF Agencies. Country case studies were conducted in Indonesia, North Macedonia, Senegal, Trinidad and Tobago, Uruguay, and Viet Nam.

The evaluation uses a mixed-methods approach, incorporating both quantitative and qualitative analytical methods and tools. An evaluation matrix, which outlines the key questions, related indicators, sources of information, and methods, is presented in [annex B](#).

The study employed the following methods:

- **Documentation review.** This consisted of a review of GEF policy, strategy, and guidance documents related to the chemicals and waste focal area.
- **Thematic synthesis.** A synthesis of chemicals and waste-related evaluations conducted by the GEF IEO provided a historical perspective and highlighted key findings, issues, themes, and lessons learned in the chemicals and waste focal area.
- **Guidance review and mapping.** An analysis of convention documentation—particularly conference of the parties (COP) decisions—and other guidance sources helped identify the links between convention guidance and the strategic objectives of the GEF chemicals and waste programmatic directions ([annex D](#)).
- **Portfolio analysis of closed projects.** This analysis systematically assessed GEF interventions using a review template specifically designed to address key evaluation questions and aggregate findings effectively based on the terminal evaluations.

- **Quality-at-entry review.** An assessment was conducted to evaluate the relevance between the chemicals and waste focal area strategies and projects and programs that have undergone midterm review but are not yet complete, starting from GEF-6 onwards. The IEO reviewed 28 such ongoing projects with midterm reviews.
- **Case studies.** Six case studies were developed to provide a deeper analysis and to address gaps in the existing evidence. The case studies included detailed reviews and site visits of selected projects ([annex C](#)). The selection process was based on several criteria: the prevalence of chemicals and waste projects, project performance, representation of various focal areas and Agencies, and a diverse range of project experiences related to key topics identified in earlier assessments.
- **Stakeholder interviews.** The evaluation included interviews with stakeholders throughout the process, with particular emphasis on the preparation of case studies and during in-country visits. The main interview partners are listed in [annex C](#).

This evaluation assessed the relevance and effectiveness of the GEF in supporting countries to meet their international convention commitments. It particularly considered the shift from focusing on specific chemicals to adopting a sectoral approach. It also evaluated the effectiveness of chemicals and waste management policies, the appropriateness of technologies tailored to national contexts, and progress in reducing or eliminating hazardous chemicals. Through a formative review of recent interventions, the evaluation explored project designs that integrate circular economy principles across supply chains in sectors such as plastics, textiles, and food and beverages, and initiatives to reduce mercury use in skin-lightening products and dental amalgam.

1.4 Limitations

The evaluation was limited by insufficient availability of terminal evaluation documents. There was information on 72 implemented and financially closed projects out of a total of 220 (23 percent) in the GEF Portal. This limitation was mitigated by conducting quality-at-entry reviews for the ongoing projects in the portfolio.

A second limitation was inconsistent availability of core indicators for measuring progress in meeting chemical reduction and disposal targets. This limitation affected the team's ability to fully assess project outcomes based on the

terminal evaluations. Notably, Core Indicators 9 and 10 related to chemicals and waste pollution were only introduced in 2019; this means that results cannot be expected from a portfolio largely consisting of closed GEF-5 and GEF-6 projects. These indicators track target values for expected chemicals to be reduced or disposed of in GEF-7 and GEF-8.



2

Portfolio analysis

2.1 Overview

The GEF's chemicals and waste portfolio spans 487 projects from GEF-5 to GEF-8 and accounts for \$1.8 billion in GEF funding and \$12.7 billion in cofinancing. Forty-five percent (219) of the projects are ongoing, accounting for \$1.2 billion or 65 percent of the total GEF funding. Funding for chemicals and waste has been increasing over the GEF replenishment periods ([table 2.1](#)).

Most of the portfolio's funding (71 percent) is from the chemicals and waste focal area. Multifocal area projects account for 25 percent of total funding, with the most common combination being international waters and chemicals and waste ([figure 2.1](#)). By region ([figure 2.2](#)), projects in Asia receive the largest share of GEF funding (31 percent), followed by Africa (25 percent) and Latin America and the Caribbean (21 percent). By modality ([figure 2.3](#)), 91 percent of GEF funding in the evaluation portfolio went to full-size projects. In terms of number of projects, full-size projects represented 47 percent of the total portfolio, followed by enabling activities (40 percent) and medium-size projects (13 percent).

The GEF's chemicals and waste portfolio features a growing number of integrated programs, with the share of funding for child projects steadily increasing across the GEF replenishment cycles ([figure 2.4](#)). A total of 15 programs, comprising 82 child projects, are part of the chemicals and waste portfolio. The share of funding for child projects has steadily increased: it began at 29 percent in GEF-6 when integrated programs were first introduced, rose to 32 percent in GEF-7, and has already reached 53 percent in GEF-8.

The United Nations Industrial Development Organization (UNIDO) leads in number of projects in chemicals and waste portfolio; the United Nations Development Programme (UNDP) manages the largest share of GEF funding. Among the GEF Agencies leading chemicals and waste interventions, UNIDO has implemented the most projects, accounting for 35 percent of the evaluation portfolio. It is followed by UNEP with 30 percent and UNDP with 23 percent. UNDP received the largest share of GEF funding, representing 26 percent of the total financing ([table 2.2](#)).

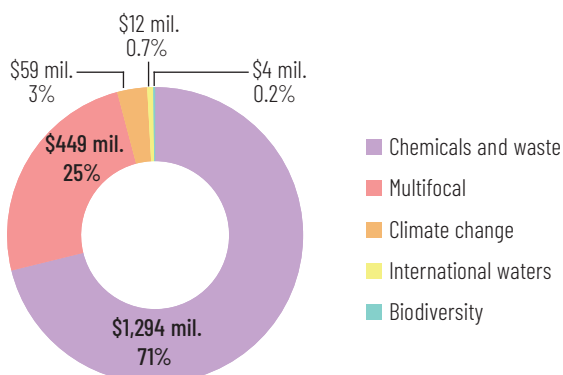
Table 2.1 Number of and distribution of GEF funding for chemicals and waste projects by replenishment period and status

GEF period	CEO endorsement stage		Ongoing		Closed		Total	
	No. of projects	GEF funding (million \$)	No. of projects	GEF funding (million \$)	No. of projects	GEF funding (million \$)	No. of projects	GEF funding (million \$)
GEF-5	1	0.2	37	174.0	129	208.4	167	382.5
GEF-6	3	16.7	63	360.7	85	106.7	151	484.2
GEF-7	0	0	114	603.4	6	3.7	120	607.1
GEF-8	44	310.0	5	34.6	0	0	49	344.6
Total	48	326.9	219	1,172.6	220	318.8	487	1,818.3

Source: GEF Portal.

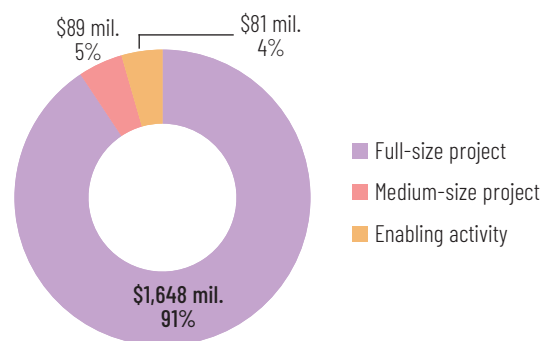
Note: The Chief Executive Officer (CEO) endorsement stage includes projects that have been approved by the GEF Council and are currently in the process of obtaining CEO endorsement or approval. Medium-size projects only require CEO approval. Ongoing projects refer to those that have received CEO endorsement or approval and are under implementation. Since GEF-8 projects are still in the programming phase, the current figures remain relatively low. Closed projects are those that have been fully implemented and financially closed. Projects that have been dropped or suspended are excluded. Financing data include project financing and project preparation grant funding and fees; Agency fees are not included.

Figure 2.1 Shares of GEF funding for chemicals and waste projects by focal area



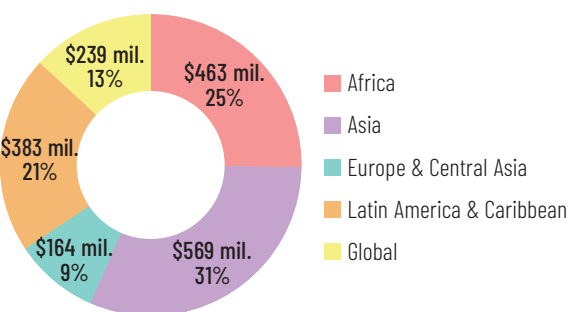
Source: GEF Portal.

Figure 2.3 Shares of GEF funding for chemicals and waste projects by project modality



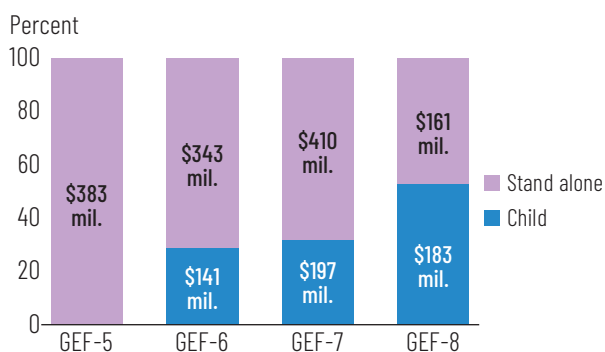
Source: GEF Portal.

Figure 2.2 Shares of GEF funding for chemicals and waste projects by region



Source: GEF Portal.

Figure 2.4 Share of GEF funding by modality and GEF



Source: GEF Portal.

Table 2.2 Number of and distribution of GEF funding for chemicals and waste projects by lead GEF Agency

Lead GEF Agency	Projects		GEF funding	
	No.	%	Million \$	%
United Nations Industrial Development Organization	169	35	\$388	21
United Nations Environment Programme	145	30	\$455	25
United Nations Development Programme	112	23	\$477	26
World Bank	21	4	\$241	13
Food and Agriculture Organization of the United Nations	13	3	\$63	3
Asian Development Bank	6	1	\$44	2
Inter-American Development Bank	4	1	\$37	2
African Development Bank	3	1	\$39	2
Conservation International	3	1	\$8	0.4
European Bank for Reconstruction and Development	3	1	\$29	2
GEF Secretariat	3	1	\$1	0.03
Development Bank of Southern Africa	2	0.4	\$9	0.5
World Wildlife Fund-US	2	0.4	\$13	1
West African Development Bank	1	0.2	\$16	1
Total	487	100	\$1,818	100

Source: GEF Portal.

Nearly half of the chemicals and waste portfolio comprises private sector projects, which account for a substantial portion of GEF funding. In total, 226 projects in the portfolio involve the private sector, representing over 46 percent of the total portfolio projects. Collectively, these projects account for more than 78 percent of the GEF funding allocated within the portfolio. A project is considered to involve the private sector if it includes at least one private sector cofinancier or executor, and/or is flagged as a private sector initiative in the GEF Portal.

2.2 Trends in the portfolio: multifocal area projects

GEF interventions in the chemicals and waste focal area have moved from single to multifocal projects over time. The share of funding allocated to multifocal area projects

has increased from 7 percent in GEF-5 to 25 percent in GEF-6, 12 percent in GEF-7, and 65 percent in GEF-8. Of the portfolio's 65 multifocal area projects, 41 (63 percent) received funding from the international waters focal area. These international waters projects primarily focused on ecosystem management in GEF-5 and GEF-6, but more recently have shifted toward circular solutions to reduce plastic pollution in GEF-7 and GEF-8. Additionally, 26 of the 65 projects received funding from the climate change focal area, focusing on technology transfer and low-carbon technologies.

Two multifocal area project examples illustrate how the GEF connects chemicals and waste with the international waters focal area. The UNEP-led GEF-6 [Mediterranean Sea Programme](#) implemented priority actions aimed at reducing significant transboundary environmental stresses on the Mediterranean Sea and

its coastal areas. These actions also enhanced climate resilience and water security, and improved the health and livelihoods of coastal populations. Meanwhile, several GEF-7 stand-alone projects—for example, the Circular Economy Regional Initiative (GEF ID 10328) led by the European Bank for Reconstruction and Development—focus on promoting the transition to a circular economy by introducing innovative clean technologies. These projects integrate renewable energy, energy efficiency, and waste management; the core concept recognizes that the increasing waste generated by municipal and industrial sectors can be harnessed as a potential energy source, complementing the deployment of renewable energy and energy efficiency technologies.

Integrated programming is a core feature of the GEF-8 chemicals and waste interventions, which address key drivers of environmental degradation in recipient countries. These integrated programs aim to deliver global environmental benefits across multiple areas, such as chemicals and waste, climate change, biodiversity, and international waters, while promoting gender equity and social and economic benefits. For example, the Circular Solutions to Plastic Pollution program targets plastic pollution in the food and beverage sector through 15 child projects currently in development. Another program, Eliminating Hazardous Chemicals from Supply Chains, aims to drive transformational change in the fashion and construction sectors by replacing resource-intensive processes and materials with sustainable alternatives, while creating and strengthening circular and transparent supply chains.

2.3 Trends in the portfolio: enabling activities

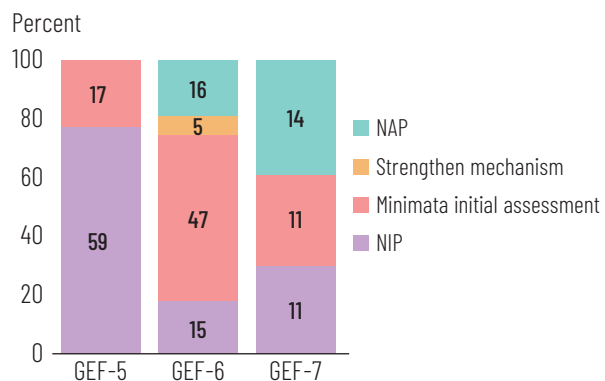
Enabling activities help countries prepare national plans and assessments related to the Stockholm and Minamata Conventions. The GEF defines an enabling activity as a “project for the preparation of a plan, strategy or report

to fulfill commitments under a Convention” (GEF 2018, 3). Enabling activities accounted for 40 percent of total projects in the evaluation portfolio and addressed four main areas:

- Developing or updating a national implementation plan (NIP) for the Stockholm Convention
- Developing a initial assessment under the Minamata Convention
- Strengthening the national decision-making mechanism to ratify the Minamata Convention
- Developing a national action plan on mercury for ASGM.

The majority of enabling activities in GEF-5 (59 projects, 78 percent) supported countries in developing or updating their NIPs for the Stockholm Convention (figure 2.5). As the Stockholm Convention was amended between COP-4 and COP-9 (2009–19) to include additional POPs in its annexes, all parties to the convention that ratified these amendments were required to update their NIPs accordingly. This shift in the GEF’s response is evident in GEF-5, where 56 enabling activities were dedicated to reviewing and updating previously prepared NIPs,

Figure 2.5 Focus of enabling activities in the chemicals and waste portfolio, by GEF replenishment period



Source: GEF Portal.

Note: Numbers of enabling activities are indicated inside the bars. NAP = national action plan; NIP = national implementation plan.

and 3 focused on preparing new NIPs. A similar trend continued in GEF-6, where 13 of 15 Stockholm Convention-related enabling activities supported the review and updating of NIPs.

Enabling activities approved in GEF-6 and GEF-7 demonstrated an increased emphasis on activities related to the Minamata Convention. About 70 percent of enabling activities were funded to develop either initial assessments under the Minamata Convention or national action plans on mercury for ASGM initiatives.

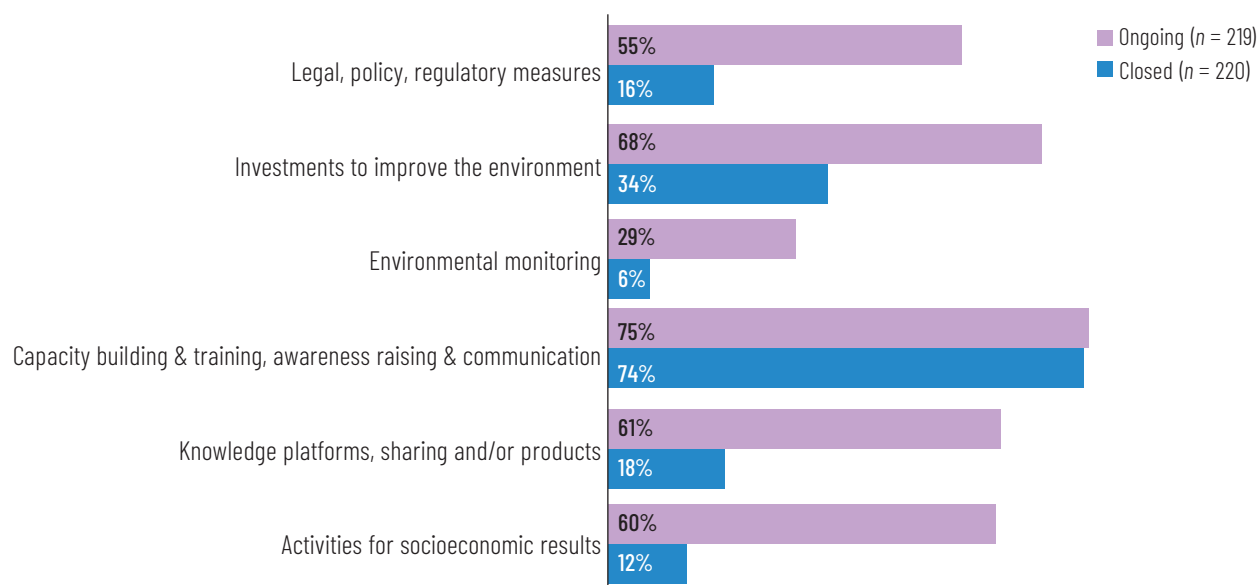
Capacity building and environmental improvement investments were the main areas of intervention in closed and ongoing projects (figure 2.6). In closed projects, the most frequently reported interventions were capacity building, environmental improvement investments in machinery or removal of contaminated soil, and knowledge management. In contrast, the portfolio of ongoing projects shows considerable emphasis on interventions aimed at (1) achieving socioeconomic results; (2)

implementing legal, policy, and regulatory measures; and (3) conducting environmental monitoring. The IEO's earlier evaluation of the chemicals and waste focal area had recommended greater focus on regulatory reform (GEF IEO 2018a); figure 2.6 shows that the GEF has since significantly increased its attention in this area.

2.4 Trends in the portfolio: cofinancing

The chemicals and waste portfolio aligns with the GEF cofinancing policy's ambition to reach a cofinancing ratio of at least 7:1. Of the 487 projects reviewed, 401 (approximately 82 percent) reported cofinancing contributions from various sources. A total of 125 projects, representing nearly 26 percent of the portfolio, received some level of cofinancing from private sector entities. The private sector was the second largest source of cofinancing in the portfolio, contributing one-quarter

Figure 2.6 Main type of interventions in chemicals and waste projects, by project status



Source: GEF Portal and Chief Executive Officer endorsement documents for 439 projects.

of the total cofinancing amount. Together, these projects raised nearly \$12.7 billion in cofinancing, achieving an overall cofinancing ratio of 6.98, which is slightly above the 6.95 cofinancing ratio for the overall portfolio. This means that for every \$1 of GEF grant funding, an additional \$6.98 was mobilized from cofinancing partners. The GEF-8 project Natural Capital Fund (NCF): Investing in Nature-Positive Agri-Food Enterprises in Asia and the Pacific (GEF ID 11062, Asian Development Bank) stands out for generating the highest cofinancing amount—\$632 million—almost 46 times the amount of the GEF grant. The Mediterranean Pollution Hot Spots Investment Project (GEF ID 9717, UNEP) from GEF-6 boasts the highest cofinancing ratio—1:104—mobilizing \$546 million.

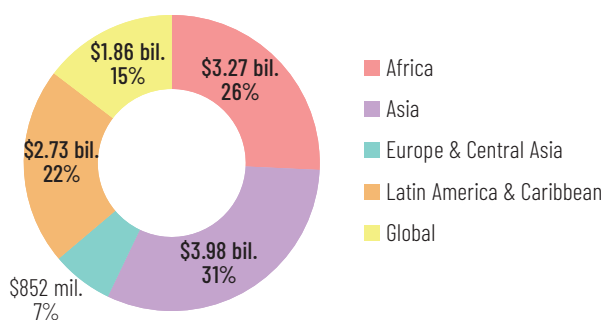
Cofinancing amounts vary across regions, with projects in Asia having raised the highest levels of cofinancing (figure 2.7).

Chemicals and waste projects in Asia, which also account for the largest GEF grant allocation of the portfolio total (nearly \$570 million), have together raised the most cofinancing, amounting to \$3.98 billion. However, global projects have the highest cofinancing ratio—7.78—despite receiving a smaller amount of GEF funding. Projects in both Africa and Latin America and the Caribbean have successfully mobilized cofinancing at a rate of seven times the GEF grant received by each region. Projects in Europe and Central Asia have the lowest overall cofinancing ratio for the portfolio at 5.2.

The amounts of cofinancing mobilized have increased over the GEF replenishment periods, but the cofinancing ratio has fluctuated (figure 2.8).

From GEF-5 to GEF-7, the total cofinancing amount rose from just under \$1.9 billion to \$4.4 billion. Although the cofinancing ratio peaked at 7.85 in GEF-6, it decreased slightly to 7.29 in GEF-7. Preliminary data for GEF-8 show promising trends, with projects raising \$2.6 billion in cofinancing and achieving a ratio of 7.56; however, this is based on a limited number of projects that have reached the Chief Executive Officer (CEO) endorsement stage.

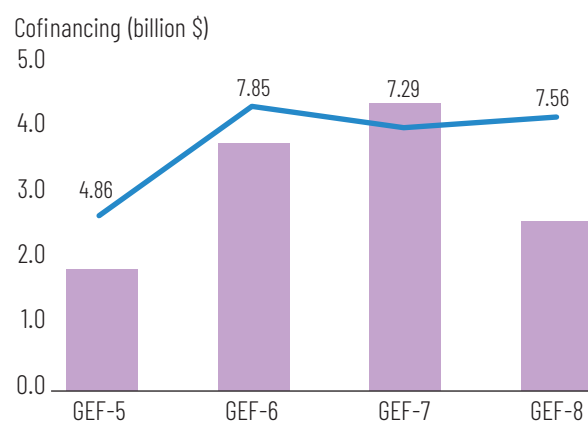
Figure 2.7 Shares of cofinancing for chemicals and waste projects by region



Source: GEF Portal.

Note: Data are for 401 projects with total cofinancing of approximately \$12.7 billion. Cofinancing ratio calculations consider total GEF financing, including project preparation grant funding and fees.

Figure 2.8 Cofinancing amount and ratio for chemicals and waste portfolio, by GEF replenishment period



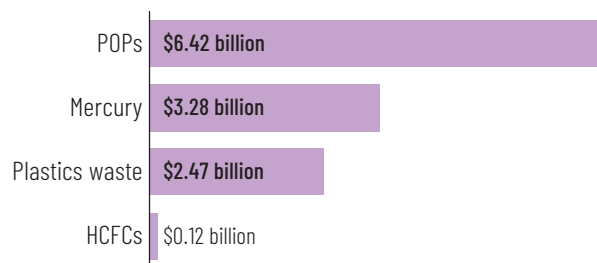
Source: GEF Portal.

Note: Cofinancing ratio is shown in blue.

Projects addressing plastics waste attract higher levels of cofinancing.

Cofinancing amounts vary across projects addressing different chemicals and waste issues. Projects targeting POPs have mobilized \$6.4 billion in cofinancing, with a ratio of 7.30. Notably, projects addressing plastic waste have attracted the highest cofinancing per dollar of GEF funding, with \$10.56 raised for every \$1 of GEF financing (figure 2.9).

Figure 2.9 Cofinancing amounts for closed projects in the chemicals and waste portfolio, by selected issue



Source: GEF Portal.

Note: HCFCs = hydrochlorofluorocarbons; POPs = persistent organic pollutants. A single project may address multiple issues.

2.5 Strategic relevance to conventions and countries

Over the past decade, GEF programming in chemicals and waste has evolved and expanded. In GEF-5, the chemicals and waste programming directions developed a unifying chemicals and waste strategy framework for the POPs and ODS focal areas (GEF Secretariat 2010). For GEF-6, a single chemicals and waste focal area approach was created, replacing the POPs and ODS focal areas (GEF Secretariat 2014). Under GEF-7, the focal area strategy shifted from a chemical-by-chemical-based approach to a sector-based approach (GEF Secretariat 2018). GEF-7 sought to promote integration with other focal areas, such as international waters (marine litter), sustainable cities, food systems, environmental restoration, sustainable forest management, and climate change mitigation. GEF-8 has further increased the shift toward a sector-based approach, seeking to align chemicals and waste activities with countries' sectoral priorities (GEF Secretariat 2022). The strategy includes a pivotal role for the private sector. More detail on the different GEF replenishment periods follows.

The GEF-5 and GEF-6 chemicals strategies effectively addressed most convention funding priorities. Overall, the

third review of the Stockholm Convention's financial mechanism concluded that the GEF-5 chemicals strategy effectively addressed the convention's guidance by explicitly covering nearly all the funding priorities listed by the COPs, except for support for activities of Stockholm Convention regional centers and the establishment of clearinghouse mechanisms (Stockholm Convention 2013b). Furthermore, the GEF-5 chemicals and waste strategy addressed pilot initiatives for mercury management and reduction in response to the negotiations that led to the establishment of the Minamata Convention.

In GEF-5, the strategy for addressing unintentional POPs (UPOPs) prioritized the management of key waste streams, including municipal solid waste, health care waste, electronic waste, and industrial emissions.¹ This approach also emphasized strengthening global and regional efforts, with regional projects supporting implementation of the global monitoring plan on POPs and assisting countries in updating their NIPs, particularly to include newly added POPs in the monitoring framework. A core aspect of this strategy involved the safe disposal of obsolete pesticide stockpiles, especially DDT, and ensuring life-cycle management of other hazardous pesticides. Furthermore, the strategy focused on developing sustainable systems for managing PCBs still in use, through enhanced inventory systems and maintenance protocols. Most mercury-related projects focused on ASGM, while a few addressed mercury use in the health care sector.

In GEF-6, the strategy focused on fostering synergies across related initiatives to enhance integration and coordination within its programs. This approach included the development of a chemicals and waste portfolio with five

¹As defined on UNEP's [UPOPs \(Unintentional POPs\)](#) webpage, UPOPs are POPs that are not voluntarily produced or released into the environment. They are emitted during incomplete combustion processes or are created as byproducts of manufacturing other chemicals. For more on UPOPs, see [section 3.4](#).

key programs. Three of these programs adopted a multifocal strategy: the Sustainable Cities Integrated Approach Pilot, the Mediterranean Sea Programme, and the Sustainable Management of the Bay of Bengal Large Marine Ecosystem Program; each of these incorporated several child projects to enhance regional and sectoral alignment. The strategy also included two targeted programs solely focused on the chemicals and waste focal area: the Environmental Health and Pollution Management Program in Africa and the Global Opportunities for Long-term Development of the ASGM Sector (GOLD). These programs were designed to address specific regional and sectoral challenges related to chemicals and waste management through several child projects. Additionally, GEF-6 aimed to balance its portfolio between multifocal and stand-alone projects. A significant portion of the approved projects—30 percent—were child projects under these five major programs; the remaining projects operated independently.

The strategy in GEF-6 for reducing UPOP emissions focused on improving waste management systems at the national level, specifically targeting sectors such as municipal waste, health care waste, and electronic waste. This approach aimed to mitigate emissions from open burning while promoting sustainable waste management practices. The strategy also looked to reduce UPOP emissions from industrial sectors, such as secondary copper processing and scrap metal recycling, by demonstrating best available techniques and best environmental practices (BAT/BEP), while also delivering socioeconomic benefits to the communities involved. GEF-6 also incorporated UPOP reduction within multifocal projects. Two child projects under the Sustainable Cities Integrated Approach Pilot were designed to address UPOP emissions through cross-cutting initiatives addressing the climate change, land degradation, and international waters focal areas. This strategy ensured that UPOP reduction efforts were aligned with broader environmental and socioeconomic goals (Stockholm Convention 2021).

The third review of the Stockholm Convention’s financial mechanism found that the GEF-6 chemicals and waste strategy was responsive to the convention’s guidance. It addressed long-standing funding priorities such as NIPs, and newly adopted time-bound priorities, including PCBs, newly listed POPs, DDT, and best available techniques for new POP sources. Although the strategy effectively covered all technical issues mentioned in the guidance, the request to increase the overall funding allocated to the chemicals focal area for the GEF-6 replenishment was not fully met (Stockholm Convention 2013a).

GEF-7 chemicals and waste projects sought to address both the Minamata and Stockholm Conventions to enhance synergies and global environmental benefits. In line with guidance from the respective convention COPs, the GEF-7 chemicals and waste strategy was developed along sectoral lines to enable integrated programming across the chemicals and waste focal area. A total of 14 projects funded during the GEF-7 period addressed issues related to both conventions.

The GEF-7 chemicals and waste programming strategy incorporated all seven priorities established by the Stockholm COP-8 guidance within its four programs. Program 1 focused on the elimination of industrial chemicals and waste at the end of their life cycle, aiming to minimize and ultimately eliminate the release of POPs-containing products and waste from entering material recovery supply chains. Program 2 targeted the introduction of alternatives to agricultural chemicals listed as POPs, with the objective of reducing the use of hazardous pesticides; ensuring the safe disposal of agricultural plastics contaminated with POPs; and restricting the production and use of DDT in cases where safe, effective, and affordable alternatives are unavailable. The Industrial Program addressed the development and strengthening of national legislation and regulations, including removing market access barriers, introducing alternatives, and promoting sustainable or green chemistry approaches that drive the shift toward a circular economy. The programming directions under GEF-7

were also aligned with guidance from the Minamata Convention COP.

Multichemical and multiconvention projects and programs received the largest share of GEF-7 programming. These accounted for approximately 44 percent of the total investment, or \$139.84 million. These initiatives were designed to address chemicals and waste management through a sectoral approach rather than focusing on individual chemicals. They were designed to build and strengthen the capacity of recipient governments for more comprehensive and integrated management of chemicals and waste. Other key themes addressed by GEF-7 projects included integrated POPs management, agricultural POPs (including new POPs), industrial POPs (excluding PCBs), electronic waste, health care waste, PCB management and disposal, and circular economy initiatives.²

The GEF-8 chemicals and waste project portfolio, reflects a clear shift toward integrated programming as a strategy to address the root causes of environmental degradation while also considering socioeconomic factors. This approach is evident in interventions targeting urban development, rural livelihoods, and commodity value chains.

The GEF-8 chemicals and waste programming strategy aims to achieve global environmental benefits through both focal area investments and integrated programs. This approach acknowledges that many of the chemicals listed under the Stockholm and Minamata Conventions are used in, or emitted from, multiple supply chains, including fashion (particularly textiles), electronics, certain classes of plastics, and building materials. These chemicals

²The projects in the GEF-7 chemicals and waste portfolio track global environmental benefits related to POPs through two core indicators. Core Indicator 9 measures and tracks the elimination, reduction, and avoidance of POPs, mercury, and ODS, quantified in metric tons. Core Indicator 10 measures and tracks the elimination, reduction, and avoidance of emissions of UPOPs to air, measured in grams of toxic equivalent.

are also prevalent in major economic sectors such as tourism, health care, industrial production and manufacturing, mining, and agriculture.

Stand-alone projects are being designed to complement the GEF-8 integrated programs by addressing POPs in plastics and replacing hazardous chemicals in key sectors like automobiles, electronics, and textiles. Several of the 19 stand-alone projects complement the two integrated programs by taking a multisectoral approach to addressing POPs and UPOPs in plastics within priority manufacturing sectors, such as the automobile and electronics industries. Additionally, these projects aim to replace hazardous chemicals in specific commodity supply chains, including textiles, garments, and footwear. For example, a Food and Agriculture Organization of the United Nations (FAO) project in the international waters focal area, Plastic Reduction in the Oceans: Sustaining and Enhancing Actions on Sea-based Sources (PRO-SEAS; GEF ID 11166), addresses marine plastic litter during GEF-8.

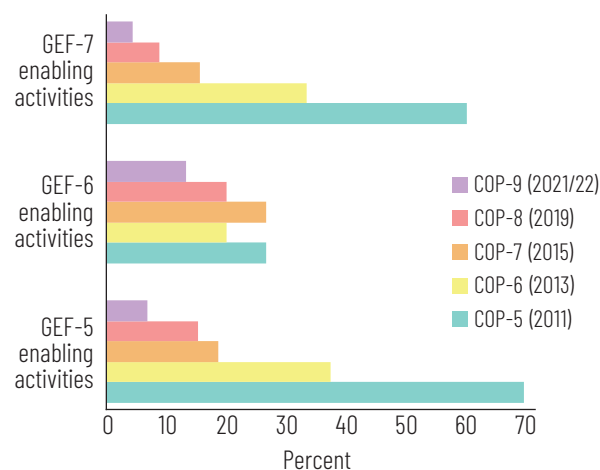
The GEF plays a crucial role in supporting implementation of the Stockholm and Minamata Conventions, with recipient countries generally acknowledging its efforts to align with the convention's guidance.³ However, the relevance of GEF programming to the Stockholm Convention has been regarded as mixed, as highlighted in a recent survey (Stockholm Convention 2025). While many countries have had positive experiences, challenges remain, particularly in low-income economies where promoting alternatives to hazardous substances is a persistent issue due to higher costs. Countries have also faced difficulties such as limited access to resources, funding delays, and narrow project scopes. Despite these concerns, the GEF's overall responsiveness to the Stockholm Convention COP guidance was rated 4.3 out of 5 by 24 recipient countries.

³At COP-5 in 2023, the Minamata COP confirmed the alignment of the financial mechanism with the convention's guidance as outlined in Minamata Convention Decision MC-4/7, [Second Review of the Financial Mechanism](#).

Submission rates of national assessments to the conventions have declined, impeding global monitoring efforts. The GEF has been financing enabling activities to assist countries in preparing or updating their NIPs for submission to the Stockholm Convention COP. These submissions are essential, as they serve as a prerequisite for securing GEF funding for chemicals and waste projects, as well as global monitoring activities. Despite this, follow-through and submission rates have declined in recent years. The IEO evaluation highlighted gaps in the submission process and the need for improvement (figure 2.10).

During GEF-5, 18 of 58 enabling activities (31 percent) were not submitted to the Stockholm Convention COP. In GEF-6, this issue worsened, with 11 of 15 enabling activities (73 percent) remaining unsubmitted. Although some progress was made under GEF-7, 18 of 45 enabling activities (40 percent) were still not submitted. This persistent trend, as illustrated in figure 2.10, highlights ongoing difficulties with the submission of NIPs and points to a critical gap in the support provided by GEF Agencies in assisting countries in finalizing and submitting their

Figure 2.10 Percentage of NIPs submitted by countries with GEF-financed enabling activities



Sources: GEF Portal and Stockholm Convention information on national implementation plan (NIP) submission.

Note: COP = conference of the parties. *n* = 119.

NIPs. Submission is a national responsibility and may be affected by country endorsement processes, changing government priorities, staff turnover, and external influences like industry lobbying. It could potentially lead to delays or reprioritization in the development of NIPs.

The GEF has made progress in addressing chemical pollution in countries with large stockpiles of PCBs, pesticides, and UPOPs. According to the UNEP Global Chemicals Outlook II report, of the 21 countries identified as having the highest PCB stockpiles, only 1—Antigua and Barbuda in the Caribbean—was part of GEF-5 and GEF-6 interventions targeting PCBs (UNEP 2019). Similarly, among the 11 countries with the largest DDT stockpiles, only 3—China, Côte d'Ivoire, and India—received GEF financing to address these chemicals.⁴ This is not suggest that other countries did not require further assistance in managing PCBs or DDT.

Interviewees in Eastern Europe and Central Asian countries with significant stockpiles indicated that they value GEF support, but emphasized the need for further assistance in waste management and environmental risk mitigation. A focus group discussion during a regional expanded constituency workshop held in North Macedonia highlighted appreciation for ongoing GEF projects addressing chemicals and waste. For instance, North Macedonia established a viable business for cleaning PCB liquids with GEF funding for PCB removal machinery, and Türkiye received support for the longer-term phaseout of PCBs. Several countries in the region expressed interest in additional assistance. For example, Tajikistan, which had previously received GEF support for its Stockholm Convention NIP and for projects focused on phasing

⁴UNEP (2019) lists Côte d'Ivoire, Ethiopia, China, Uganda, Mali, Mauritius, Haiti, India, Solomon Islands, Sudan, and Tajikistan as the 11 countries with the highest legacy pesticides. The following countries received GEF financing for pesticides and DDT during GEF-5 and GEF-6: Armenia, Bangladesh, Benin, Cameroon, China, Côte d'Ivoire, Guatemala, India, Malawi, Morocco, and Uruguay.

out ODS and promoting sustainable cooling systems, is looking to enhance its waste management efforts and has established regional waste management centers. Similarly, Kyrgyzstan, which has benefited from GEF support for managing mercury, POPs, and DDT, is eager to advance waste management and PCB removal. The country's significant PCB stockpiles in upper mountain ranges pose a contamination risk to the entire watershed, including Uzbekistan and Kazakhstan, particularly in the event of a natural disaster, such as the 2023 floods in Pakistan.

While the GEF is addressing many of the most relevant chemicals and waste-related issues, some gaps have been observed.

A mapping exercise, presented in [table 2.3](#), confirms that the GEF is addressing many of the most relevant chemicals and waste-related issues in each country. For example, countries with significant textile, dental amalgam, and skin lightening product industries have been selected for GEF support in these areas. However, while key industries are covered, gaps remain in other areas. This could in part be explained by countries not submitting requests for multiple GEF projects in a GEF cycle. For instance, although electronic waste recycling is important in Uruguay, the country has not submitted a project for GEF consideration that is focused on safe electronic waste dismantling.⁵

Table 2.3 provides a schematic overview of GEF-financed interventions across chemical-related industries and services in the case study countries. It highlights that five of the six countries are addressing the mining sector, focusing on emissions reduction and the safe disposal of PCB oils. Viet Nam and Indonesia also tackle industrial production through metal plating, and manufacturing via supply chain approaches in the automotive and textile

⁵ The GEF's country-driven model balances several key elements: countries setting priorities, conventions offering guidance, the GEF outlining programming directions, and implementing Agencies proposing projects. Consequently, declines in certain areas may result from a complex interplay of factors that are challenging to disentangle.

industries. The other four countries do not address textiles, despite the sector's significance. Packaging, while relevant to all six countries, is being addressed by only three.

The GEF was relevant to key sectors in Viet Nam through projects focused on eco-industrial parks, green chemistry, and contaminated soil cleanup and recycling. Some of these projects have driven transformational change and highlighted the GEF's added value. Viet Nam has not sought GEF assistance for the food and beverage industry, despite its significance as a major sector in the country. A critical issue is that food waste is often mixed with plastic waste and ends up in landfills. To tackle this, prioritizing waste separation before it reaches landfills and institutionalizing composting are essential steps for the country.

In Trinidad and Tobago, the GEF has been relevant in addressing end-of-life plastics recycling and landfill improvements.

Trinidad and Tobago has not sought GEF support for its major chemical industries, which include oil and gas production, as well as ammonia, methanol, and cement manufacturing. Although major international companies operate in these sectors and comply with global regulations, robust environmental legislation remains crucial for the country. Gaps still exist, particularly in areas such as mercury management.

While the GEF is effectively aligning its programming with convention commitments, some recipient countries face challenges in accessing support. Recipient countries are generally satisfied with the GEF's financial support in helping them meet these obligations. However, according to a Stockholm Convention survey, some countries—particularly those in the lower-income bracket—find the processes burdensome (Stockholm Convention 2025). These nations also express a desire for increased financial support to address POPs like PCBs and to update and submit their NIPs to the convention COPs. Considering the limited presence of GEF projects within key chemical industries and sectors that contribute significantly to chemical waste, it is

Table 2.3 Coverage of selected sectors and supply chains through GEF-financed projects in case study countries

Sector and supply chain	Indonesia	North Macedonia	Senegal	Trinidad and Tobago	Uruguay	Viet Nam
Mining, oil, and gas: Emissions reduction through resource sharing and PCB disposal, waste to energy	●	●	●	●		●
Industrial production, construction material: Metal plating, cement, green chemistry, automotive	●					●
Manufacturing: Textile industry	●					●
Agriculture: Packaging in the food and beverage industry		●		●	●	
Electronics: Electronic waste and battery recycling	●		●		●	
Tourism: Plastics and waste management, recycling	●		●	●		●
Health care: Medical waste, laboratory equipment, dental amalgam, skin-lightening products	●		●		●	●

Sources: Literature review and project documents.

essential for both the conventions and the GEF to extend support and guidance to countries in developing projects. This assistance will enable them to formulate

and implement impactful projects addressing chemical waste management.



3

Results and performance

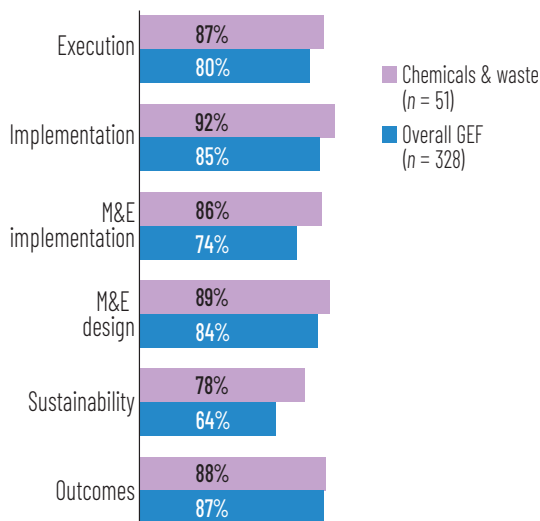
3.1 Key trends in performance

Chemicals and waste projects have demonstrated strong performance, with slightly higher outcome and sustainability ratings compared to the overall GEF portfolio. For a cohort of 51 closed GEF-5 and GEF-6 chemicals and waste projects that received performance ratings in the IEO's APR 2023, 88 percent were rated in the satisfactory range (moderately satisfactory, satisfactory, or highly satisfactory) for outcomes, mirroring the outcome ratings from the overall APR 2023 cohort ([figure 3.1](#)). The ratings for the likelihood of sustainability of outcomes at project closure, however, were significantly higher for the chemicals and waste cohort than for the overall APR 2023 cohort, with 78 percent and 64 percent rated as sustainable, respectively. Ratings for overall implementation and execution as well as for monitoring and evaluation (M&E) design and M&E implementation were also higher in the chemicals and waste cohort compared with the overall APR cohort.

Global projects and those in Asia have performed particularly well. One hundred percent of completed chemicals and waste projects in Asia and global projects are rated in the satisfactory range for outcomes ([figure 3.2](#)). In contrast, projects in Europe and Central Asia had the lowest percentage of satisfactory outcomes, with only 67 percent ($n = 9$) rated in this range. Global projects and projects in Asia also had higher sustainability ratings at completion, with 80 percent and 75 percent, respectively, rated in the likely range for sustainability of outcomes. The Africa region had the lowest sustainability ratings, with only 60 percent of projects ($n = 10$) rated as likely to be sustainable.

M&E were notably affected by the COVID-19 pandemic, which disrupted standard procedures and hindered in-person field visits. Six projects were rated in the unsatisfactory range at completion for M&E design and M&E implementation. However, their midterm reviews did not indicate significant challenges, and all six projects received moderately satisfactory or satisfactory ratings for implementation progress, with no

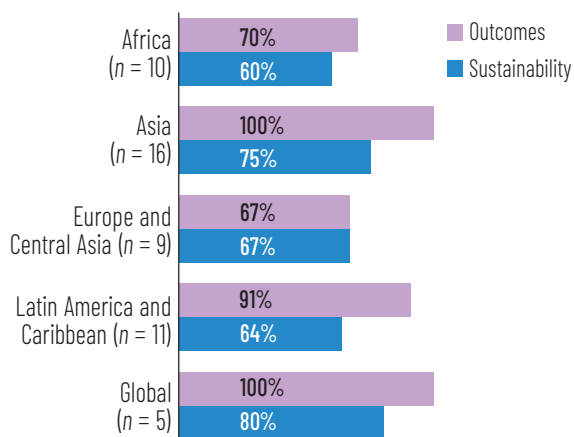
Figure 3.1 Chemicals and waste projects with performance rated in the satisfactory/likely range versus the overall GEF portfolio



Source: GEF IEO Annual Performance Report 2023 data set.

Note: M&E = monitoring and evaluation.

Figure 3.2 Chemicals and waste projects with outcome and sustainability ratings in the satisfactory/likely range, by region



Source: GEF IEO Annual Performance Report 2023 data set.

substantial risks identified at the midterm review stage. A consistent pattern emerged across these projects, characterized by insufficient M&E frameworks and poor stakeholder engagement—factors that persisted until

project completion, ultimately contributing to unsatisfactory outcomes. Evidence from the project review suggests that earlier interventions—such as formalizing M&E systems, improving stakeholder coordination, and securing dedicated resources for evaluation—could have mitigated these issues.

Midterm reviews and terminal evaluations indicate that lockdowns during the COVID-19 pandemic affected data collection and project outcomes, often rendering interventions less relevant. COVID-19-related lockdowns created atypical situations, and the observed changes were not always due to project activities or within the project’s control. For example, the Achieving Low Carbon Growth in Cities through Sustainable Urban Systems Management in Thailand project (GEF ID 5086, UNDP) supported composting in 28 hotels on Samui and equipment to process coconut and milk waste into animal feed and fertilizer. The reduction in tourists and in the overall amount of commercial waste generated meant that these interventions were irrelevant, at least during the lockdown period (GEF IEO 2022a).

3.2 Reporting on core indicators

The IEO reviewed the planned and actual reduction and elimination of chemicals using data reported in the GEF Portal, including for Core Indicators 9 and 10 (GEF 2019). Core Indicator 9 measures the reduction, disposal/destruction, phaseout, elimination, and avoidance of chemicals of global concern and their waste in the environment and in processes, materials, and products in metric tons of toxic chemicals reduced. Core Indicator 10 tracks the reduction and avoidance of emissions of POPs to air from point and nonpoint sources.

In all, 158 projects in the chemicals and waste portfolio set targets for either Core Indicator 9 or 10 at design, and 23 completed projects reported results in their terminal evaluations. To provide context for these relatively low numbers of projects, note that core indicators

were only introduced in 2019, and some GEF-6 projects tracked core indicators that were introduced ex post.

Targets for Core Indicator 10 were exceeded in GEF-5, while targets for Core Indicator 9 were less frequently achieved (table 3.1). Three GEF-5 projects recorded targets for Core Indicator 10 at the project design stage, all of which are completed, achieving 117 percent of the original targets. Of the six GEF-5 projects that documented targets for Core Indicator 9, five reported results in their terminal evaluations, achieving 45 percent of the original targets. Additionally, three GEF-5 projects, while not having set initial targets for Core Indicator 9, reported outcomes at project completion, leading to an average of 56 percent achievement of the GEF-5 original targets.

Target setting for the core indicators at the design stage has improved over the GEF replenishment periods. Twenty-six percent of GEF-6 projects and 60 percent of GEF-7 projects reported targets for Core Indicators 9 and 10 during project design. However, it is still too early to assess the achievement of these targets as most projects are ongoing. Of the 49 GEF-8 projects in the portfolio, 45 (92 percent) set targets for Core Indicators 9 and 10.

3.3 Sustainability

Sixty-eight percent of completed projects in the chemicals and waste portfolio are likely to sustain results. This is higher than the GEF's cumulative average of 63 percent. Despite this favorable comparison, the findings underscore the ongoing challenges in ensuring long-term sustainability across the portfolio. Mercury-related projects have faced the most sustainability challenges; while POPs, health care waste, and UPOPs projects have generally been more successful. In Indonesia, for example, mercury-containing medical devices were collected; however, the lack of disposal options for the mercury presents a significant challenge for the future.

Private sector involvement, supported by strong legislation, has proven to be a key factor in ensuring the sustainability of GEF projects across several countries. The Implementation of Eco-Industrial Park Initiative for Sustainable Industrial Zones in Vietnam (GEF ID 4766, UNIDO) stands as a successful example where private sector engagement, backed by legislation, has led to long-term impact. Similarly, a PCB reduction project in North Macedonia—Demonstration project for Phasing-out and Elimination of PCBs and PCB-Containing Equipment (GEF ID 2875,

Table 3.1 Core Indicator 9 and 10 targets and results by GEF replenishment period

GEF period	Core Indicator 9				Core Indicator 10			
	No. of projects reporting targets and/or results	Target (t)	Results (t)	% of target achieved	No. of projects reporting targets and/or results	Target (gTEQ)	Results (gTEQ)	% of target achieved
GEF-5	9	18,418.0	10,338.8	56	3	35,246.8	41,195.5	117
GEF-6	34	75,892.1	5,245.7	7	7	354.2	170.6	48
GEF-7	65	103,081.1	0.2	—	33	3,781.4	—	—
GEF-8	30	66,301.4	—	—	32	4,322.3	—	—
Total	138	263,692.6	15,584.6	6	75	43,704.6	41,366.1	95

Source: GEF Portal core indicator data report.

Note: — = not available; gTEQ = grams of toxic equivalent; t = metric ton. Some projects may report actual results but have no target/expected results at Chief Executive Officer endorsement/approval stage (and vice versa).

UNIDO)—achieved sustainable results through effective collaboration with the private sector under appropriate legal frameworks. Indonesia also saw some success in this regard, in Introduction of an Environmentally Sound Management and Disposal System for PCBs Wastes and PCB Contaminated Equipment in Indonesia (GEF ID 4446, UNIDO)—though further legislative improvements are needed to fully secure sustainability. In these instances, sustainability was ensured through a combination of GEF financing, government legislation or subsidies, certification schemes, or partnerships with international firms.

Technological innovation plays a vital role in the chemicals and waste sector, but long-term sustainability depends on aligning these innovations with local capacities for operation and maintenance. The IEO identified two main types of technological innovations. The first involves substituting harmful chemicals or pesticides with environmentally friendly alternatives, such as green chemistry or eco-friendly pesticides. The second type focuses on machinery or equipment designed either to detect harmful chemicals (e.g., laboratory equipment) or to remove and destroy them (e.g., autoclaves for managing health care waste).

In the first model of a technological innovation, substituting harmful chemicals or pesticides with environmentally friendly alternatives proved sustainable. It requires significant investment by countries to comply with international conventions and local regulations. For this substitution to be sustainable in the long term, governments must create incentives and provide financial support to help the private sector adapt to these innovations and manage the associated investment costs. The introduction of access to finance in GEF-6 was instrumental in fostering long-term sustainability. [Box 3.1](#) highlights a sustainable green chemistry project, though the long-term sustainability and replicability of such efforts remain uncertain.

The second model of technology innovation, investing in high-tech machinery for sustainable environmental

Box 3.1 Private sector implements green chemistry in Viet Nam

The Viet Nam case study highlights the successful implementation of green chemistry technology by Plato Joint Stock Company, a plating factory in Thai Nguyen Province, to improve its environmental practices. The Green Chemistry Project (GEF ID 9379, United Nations Development Programme), supported by a GEF grant of \$2.1 million, leveraged substantial private sector cofinancing of \$9.9 million, a nearly 5:1 ratio. As part of a pilot initiative, the factory focused on replacing harmful chemicals such as perfluorooctane sulfonate (PFOS) and persistent organic pollutants with sustainable, eco-friendly alternatives. Traditionally, PFOS was used as a mist suppressant in chrome plating, but its use was not in compliance with Stockholm Convention guidelines, as the plant lacked a closed-loop system. To address this, the project successfully substituted hexavalent chromium with the safer trivalent chromium in decorative plating applications, eliminating the need for PFOS.

The factory underwent a complete overhaul, installing new zinc-alkaline electroplating lines to replace the old chrome-plating processes. This upgrade improved environmental management by introducing a recycling system for water used in the plating process, with toxic sludge now treated separately. Despite challenges posed by the COVID-19 pandemic, which reduced the factory's operating capacity by half, Plato continues to serve its international clients, particularly in the United States and the Republic of Korea, but business remains slow. The factory's manager nonetheless affirmed that the investment in green chemistry was the right decision, reflecting a commitment to sustainable practices while maintaining its competitive edge in the global market.

solutions, was not sustainable in most cases. Investments in machinery often faced challenges due to skill gaps, budget constraints, and supply issues. One of the primary challenges was the lack of technical skills among

local workers. High-tech machinery often requires specialized training, and without adequate capacity building, the local workforce may be unable to operate or maintain the equipment effectively. This can lead to underutilization or even abandonment of the technology.

For instance, in Senegal, the UNIDO-implemented project, Environmentally Sound Management of Municipal and Hazardous Solid Waste to Reduce Emission of Unintentional POPs (GEF ID 4888), financed the construction of various facilities in the city of Tivaouane. These included an electronic equipment collection and dismantling center, an environmentally sound landfill, and a medical waste autoclave. However, none of the machinery is being used as originally intended. Garbage has piled up, and informal workers are left to manually sort the waste, pointing to a lack of formalization. This outcome highlights the critical need to engage local stakeholders during project design, cultivate a sense of ownership, and develop long-term capacities to ensure that newly installed machinery is effectively used and maintained.

Sustainability was at risk in other countries as well. A lack of training and maintenance funding has left critical lab equipment unused. In Trinidad and Tobago, X-ray fluorescence spectroscopy equipment, intended for analyzing the elemental composition of materials, remains unused in its original packaging due to a lack of funding for the necessary training. Similarly, lab equipment in Indonesia was relocated from its original site and is no longer in use because staff were not trained to reinstall it, and no maintenance contract was put in place to support its upkeep. Successful cases—such as mercury measurement in Uruguay, autoclaves in Jordan and Trinidad and Tobago, and PCB elimination machinery in Indonesia and North Macedonia—shared a common success factor: the presence of a dedicated “champion” from the government or private sector. These champions played a pivotal role in ensuring equipment was properly installed, staff were trained, and resources were allocated.

Waste management projects face sustainability challenges due to financial, workforce, and public awareness gaps.

Despite some progress, sustainability in waste management projects has yet to be fully achieved, as shown by country experiences. Key gaps include the need to address local municipalities’ capacity to cover operation and maintenance costs (evident in projects in Indonesia, Senegal, and in Viet Nam). For instance, an ongoing Health and Pollution Management Project in Senegal (GEF ID 9854, World Bank) focuses on raising long-term community awareness about recycling. Volunteers conduct door-to-door outreach, educating residents on recycling practices as a sustainable alternative to open burning. Since the project is still in progress, its long-term sustainability remains to be determined.

Projects that remediated soil contaminated by lead and DDT proved sustainable even though their health benefits have not been recorded, and the IEO had to rely on observation and interviews to assess lasting change ([box 3.2](#)).

Learning and adapting during implementation helped turn around high-risk chemicals and waste projects.

Of the 51 completed projects with an APR rating, 21 (41 percent) had midterm reviews, and 3 were flagged for substantial risks. Two of these faced moderately unsatisfactory progress. For instance, the Obsolete Pesticides Management Project in Côte d’Ivoire (GEF ID 5362) initially faced substantial risks due to capacity and operational challenges. However, through early training, integration into an experienced project coordination unit, and oversight from an international expert and safeguards team, the project’s risk rating dropped to moderate by completion, thanks to adaptive management and World Bank support. This pattern held across the other two flagged projects as well, which shared common risks related to institutional capacity, environmental concerns, and stakeholder engagement. Key milestones were underachieved at the midterm review stage, but corrective actions and recommendations allowed them

Box 3.2 Lead decontamination in Indonesia showcases recovery and sustainability

In Indonesia, a village once plagued by informal lead-acid battery recycling faced serious environmental and health challenges. Lead contamination not only harmed local biodiversity, killing birds and stunting vegetation, but also posed long-term risks to human health, increasing cardiovascular disease rates and impairing cognitive development.

With support from the GEF under a regional lead decontamination project, the village has recovered. Polluting activities were halted, and soil was safely treated. Farms are now thriving again, and residents credit the project with stopping harmful practices and sparking environmental recovery.

As this success shows, long-term safeguards are essential. Future generations need clear signage and records to ensure they do not unknowingly disturb contaminated land and equipment. A similar chemicals management project in Viet Nam demonstrated how nature-based solutions, such as planting vegetation over contaminated areas, can create a natural barrier to protect communities and prevent exposure. These efforts highlight how a blend of remediation, awareness, and future safeguards can lead to sustainable, lasting change.

to mitigate risks and successfully meet their objectives by project closure.

A strategic approach is crucial for replicating and scaling the destruction of legacy POPs, as many chemicals and waste projects often serve as demonstration efforts but lack the frameworks for long-term sustainability. While these projects successfully collect and destroy POPs, they often fall short in establishing financial mechanisms or prioritizing replication of their successes. Given that the GEF cannot fund the destruction of all POPs or the conversion of every industrial facility to cleaner production processes, scaling up these efforts requires

strong legislation and enforcement. Without regulatory support, the countrywide adoption of successful practices remains limited, and long-term impacts cannot be fully realized.

3.4 Effectiveness

This section evaluates the outcomes of GEF's single-chemical focus in GEF-5 and GEF-6. During these replenishment periods, the GEF effectively supported countries in managing chemicals to meet their convention commitments, with a primary focus on specific chemicals like PCBs, UPOPs, pesticides, and mercury. The evaluation's analysis concentrated on closed projects related to three types of chemicals: PCBs, pesticides, and UPOPs. For each of these chemicals, it also looked at developments in GEF-7 and GEF-8, highlighting the growing emphasis on integrating sectoral approaches. ASGM projects, which accounted for a significant portion of the GEF-6 chemicals and waste portfolio, are addressed in a separate IEO evaluation (GEF IEO 2022b). Non-ASGM mercury projects during this period mainly involved initial assessments under the Minamata Convention.

The GEF's approach has evolved from the chemical-by-chemical strategy of GEF-5 and GEF-6 to a more integrated, sectorwide focus. Despite this shift, the lessons learned from the single-chemical approach remain valuable, as many of the same chemicals are now being tackled across various industry supply chains, requiring more comprehensive solutions. This section presents evaluative evidence on specific single-chemical projects, assessing the effectiveness of past efforts and offering insights for the newer, programmatic and sector-based approaches.

PCBs

The GEF has played a crucial role in assisting countries to manage and eliminate PCBs. PCBs are one of the original 12 POPs listed under the Stockholm Convention. PCBs have dispersed globally and are linked to adverse

human health impacts such as cancer, reproductive issues, and immune system deficiencies. According to a recent Stockholm Convention assessment, approximately 330,000 tons of PCBs (or 22 percent of the total produced) have been destroyed within national boundaries (Stockholm Convention 2023). During GEF-5 and GEF-6, the GEF supported 12 countries in (1) identifying and validating PCB inventories; (2) developing national phaseout and elimination plans; (3) disposing of contaminated equipment and other PCB waste; and (4) building national and local capacities, including regulatory enforcement as well as treatment and disposal infrastructure.

On average, GEF-5 and GEF-6 projects successfully surpassed PCB elimination targets. Together, the GEF-5 and GEF-6 projects exceeded their targets by eliminating approximately 112 percent, or 6,245 metric tons, of PCBs. Six projects received outcome ratings in the satisfactory range; however, one—Disposal of Obsolete Pesticides including POPs, Promotion of Alternatives and Strengthening Pesticides Management in the Caribbean (GEF ID 5407, FAO)—was rated as moderately unsatisfactory. Although this project disposed of 319 metric tons of obsolete pesticides, it has not been successful in ensuring capacity development and knowledge transfer in all project countries equally. The project failed due to a disconnect between strong regional stakeholder engagement and weaker national-level involvement. Furthermore, poor communication between the project and the Basel Convention Regional Centre for Training and Technology Transfer for the Caribbean and the FAO team hindered the creation of synergies, particularly in aligning model legislation on chemicals and pesticides. In some countries, interest waned after pesticide disposal activities ended, with limited involvement of policy makers and national-level decision-makers, further undermining long-term impact.

A successful example of the GEF's long-term engagement helped countries eliminate PCB stockpiles from North Macedonia. The GEF financed two successful projects in

North Macedonia addressing PCB management. The first project ran from 2002 to 2006, focusing on enabling activities. This was followed by a PCB phaseout project that helped a private company, Rade Koncar, establish specialized PCB removal services. Initially targeting the decontamination of 20 percent of the country's PCBs, the project had treated nearly 90 percent by 2023. Rade Koncar now offers PCB removal services not only within North Macedonia but also to neighboring Montenegro and Kosovo, using a business model that combines transformer production with PCB cleaning and transformer maintenance, eliminating the need for costly shipments to Switzerland.

Attempts to treat PCB waste from other countries have sometimes faced regulatory and political barriers. For instance, in Indonesia, a gap exists between the high capacity of the country's PCB treatment facility and the limited supply of PCB waste being sent to it. One proposal to bridge this gap is for the facility to treat PCB waste from other countries. However, current Indonesian regulations prohibit importation of PCB waste from abroad, reflecting a broader, multiagency consensus that Indonesia should not become a waste disposal site for other countries.

A thorough assessment of local needs and capacities is necessary before machinery is imported. Investing in machinery imported from Europe, the United States, or China requires a thorough, context-specific assessment of local needs and capacities to ensure sustainability. Inventory exercises have proven useful in assessing the scale of challenges related to chemicals and waste. Moving forward, these exercises should assess the local context to better contextualize skill levels, municipal budgets, and demand. For example, Indonesia's above-discussed PCB treatment plant was built based on an estimate that there was a total stock of 16,000 tons of PCB waste in the country.¹ However, the

¹According to a [2022 survey](#), Indonesia still needs to dispose of an estimated 15,135,364.5 kilogram, or 16,683 tons, of PCB

project overlooked the fact that much of this waste is sold and processed informally, leaving only a small portion from entities willing to pay for proper disposal. In addition, legislation set PCB limits too high, enabling firms to avoid the costs of safe disposal and remediation by diluting PCB oils instead. As a result, while the facility has the capacity to process over 3,000 tons annually, it has only handled 200 tons so far.

Successful PCB projects focused on capacity building, stakeholder involvement, and regulatory enhancements. Since PCBs were commonly used in transformers, electric utility companies play a crucial role in the environmentally sound management of these substances. Effective collaboration between technical experts and PCB owners is essential. Some projects achieved notable private sector engagement or aimed to establish public-private partnerships to better address PCB-related challenges. However, even some of the most successful PCB projects—such as the UNDP-led effort in Montenegro, Comprehensive Environmentally Sound Management of PCBs (GEF ID 9045)—were unable to establish public-private partnerships. Another project, Integrated PCB Management in Costa Rica (GEF ID 4485, UNDP), successfully developed technical capacities for operating new equipment and enhancing storage infrastructure for PCB elimination. Its outcomes are highly sustainable, strengthening governance, institutional capacity, and the technical and operational capabilities of participating companies. The project also aligned with international good practices by improving regulations, inventory systems, and monitoring and control measures—enabling companies to comply with national legal requirements for PCB management and removal.

In GEF-7 and GEF-8, the single-chemical approach has evolved, shifting toward full integration with the power sector. In GEF-7 and GEF-8, only four projects targeted PCBs. Two GEF-7 projects are under way in Brazil and Peru.

liquids and equipment to meet the 2028 deadline on PCBs.

The Environmentally Sound Destruction of PCBs project in Brazil (GEF ID 10368, UNDP) focuses solely on PCB disposal, benefiting from large-scale targets and private sector funding, without integration with other chemicals and waste projects. In contrast, Peru's Environmentally Sound Management of PCBs, Mercury, and Other Toxic Chemicals project (GEF ID 10419, UNDP) addressed several chemicals. Two newly approved GEF-8 projects in Côte d'Ivoire and Indonesia aim to eliminate PCBs from water and soil, aligning with the power sector through a sectoral approach. A regional initiative not included in the evaluation portfolio due to its recency is the Global Elimination Program for PCB (GEF ID 11749, World Bank). It is engaging with utilities to integrate PCB management into transmission and distribution in the power sector, using approaches and decision tools that are being developed under a companion World Bank analytical and advisory project.

These recent initiatives notwithstanding, the overall number of GEF-funded PCB projects has significantly declined, highlighting the need for increased support moving forward. Efforts are still under way to help countries meet the Stockholm Convention's 2028 deadline for ensuring environmentally sound waste management of PCBs, but critical PCB stockpiles continue to pose risks in various regions. As referred to [earlier](#), large PCB stockpiles in Kyrgyzstan's upper mountain ranges threaten the entire watershed, including neighboring countries. Moreover, although PCB management is prioritized in GEF-8 chemicals and waste programming, few projects exist due to limited country requests. This lack of interest and reduction in GEF-funded PCB projects presents a substantial challenge to meeting the convention's deadline.

Pesticides

Pesticides not only harm the environment but also pose serious risks to human health. They are major contributors to biodiversity loss and have been associated with severe health issues, including terminal illnesses such as cancer (Bassil et al. 2007). According to the World

Health Organization’s Mortality Database, approximately “385 million cases of unintentional acute pesticide poisoning occur annually worldwide, resulting in around 11,000 fatalities” (Kapeleka et al. 2025). Although most of the POPs pesticides listed in the Stockholm Convention have been banned in countries that have ratified the convention, many of these countries still face challenges in fully eliminating the use of these hazardous chemicals in agriculture.

Several GEF projects successfully disposed of significant quantities of obsolete pesticides and DDT, with some even exceeding their project targets. In the chemicals and waste portfolio, there were nine projects from GEF-5 and one from GEF-6 with terminal evaluations that include components addressing harmful pesticides. On average, these nine projects achieved 87 percent of their disposal targets—that is, 5,513 tons of waste disposed of from a total of 6,311 tons targeted—with 75 percent of the projects being rated in the satisfactory range.

Successful inventories and disposals of pesticides highlight the GEF’s effectiveness in building national capacity.

For instance, the POPs Legacy Elimination and POPs Release Reduction Project in Türkiye (GEF ID 4601, UNDP) received a highly satisfactory rating in its terminal evaluation. It strengthened institutional, regulatory, and technical capacities within a comprehensive chemicals management framework; and eliminated at least 350 tons of PCB stockpiles and equipment and monitored contaminated sites. Through targeted capacity building, it addressed the urgent need for better management and disposal of hazardous chemicals, ensuring long-term environmental and public health protection. The Viet Nam POPs and Sound Harmful Chemicals Management Project (GEF ID 5067) provided training and capacity building to local community members and Indigenous populations on the safe management and disposal of DDT ([box 3.3](#)).

Eight of the 10 completed projects focused on obsolete pesticides successfully engaged private sector entities, with the most successful example being in Pakistan. The projects

Box 3.3 Inclusion of Indigenous Peoples in a GEF-financed DDT removal project

As part of the Viet Nam POPs and Sound Harmful Chemicals Management Project (GEF ID 5067 UNDP), a site cleanup was conducted in a remote ethnic minority community in the country’s central highlands. A cave in this community, used during the Viet Nam war to store large quantities of DDT, was the focus of the cleanup effort. The project team undertook excavation and removal activities, treating contaminated soil using a nature-based solution—phytoremediation. This involved planting specific plants to absorb contaminants and using local vegetation to discourage people from approaching contaminated areas. This solution was chosen for its cost-effectiveness and suitability for the remote community’s context. Engaging the local community was a priority, with an emphasis on training and raising awareness. Community members were taught how to manage pesticide pollution safely and to protect themselves from its harmful effects.

involved a range of private sector participants, including importers, manufacturers, distributors of pesticides and biopesticides, and traders of agricultural products. To effectively engage the private sector in pesticide and container management, the projects typically (1) adopted a market-oriented approach, (2) actively involved the local private sector, and (3) utilized extension services to help farmers adopt new technologies. For example, the Comprehensive Reduction and Elimination of Persistent Organic Pollutants in Pakistan (GEF ID 4477, UNDP) effectively engaged the private sector in managing the collection and disposal of obsolete pesticides. Instead of relying on agricultural extension departments, private companies were tasked with safely collecting pesticides and containers and delivering them to designated disposal sites. This approach not only leveraged private sector capabilities but also fostered long-term environmental responsibility and infrastructure improvements within the industry.

Challenges in private sector engagement arose due to low farmer demand, industry resistance, and limited formal frameworks for collaboration. Projects faced challenges in engaging the private sector when (1) there was insufficient farmer demand for alternative pesticides and resistance from the industry, (2) a formal framework for private sector involvement was lacking, and (3) individual countries struggled to reach agreements with the regional pesticides control board. For instance, regional private sector engagement in the Caribbean was hindered by conflicts between regional integration and national sovereignty, posing risks to project sustainability. Private sector engagement was achieved at the regional level through the Coordinating Group of Pesticides Control Boards, but it did not extend to the ground level as intended. Despite private sector advocacy for a regional pesticide registration mechanism for over 20 years, individual Caribbean countries were unable to reach an agreement. The tension between regional integration and national sovereignty was identified as the primary obstacle, posing a significant sociopolitical risk to the sustainability of the initiative.

There was a decline in the number of pesticide projects with a shift toward integration with other chemicals in the agricultural supply chain under GEF-7. The chemicals and waste portfolio shows a consistent decrease in the number of GEF projects with pesticide components. In GEF-5, 15 percent of projects had pesticide components; this decreased to 7 percent in GEF-6, 9 percent in GEF-7, and only 2 percent thus far in GEF-8. There are just eight projects with pesticide components across GEF-7 and GEF-8.

For instance, the GEF-7 Financing Agrochemical Reduction and Management (FARM; GEF ID 10872) program includes five full-size child projects that address the agricultural supply chain by providing farmers with access to finance to help them transition to nontoxic pesticides, while establishing a system for the safe removal of toxic containers and improving the regulatory framework. Targeting major food-producing countries—Ecuador, India, Kenya, Lao PDR, the

Philippines, Uruguay, and Viet Nam—the program aims to mitigate the use of harmful pesticides. It also seeks to help governments establish minimum product standards and implement mandatory requirements for extended producer responsibility (EPR) schemes for unwanted pesticides, empty containers, and agricultural plastics.²

UPOPs

UPOPs are a group of toxic manufactured chemicals that have harmful effects on the environment and human health. Unlike other POPs that are intentionally produced for various purposes, UPOPs are not intentionally manufactured or released. Instead, they are formed as byproducts of industrial processes, combustion, and other human activities. They are among the most toxic carcinogens known. Short-term exposure to high levels of UPOPs can cause skin lesions like chloracne, patchy skin darkening, and liver function alterations. Long-term exposure is associated with immune system impairment, developmental issues in the nervous system, endocrine disruptions, and reproductive problems (Innocent, Sakwe, and Iguisi 2016).

The GEF has financed several projects worldwide aimed at addressing various types of UPOPs. These projects encompass a wide range of waste management issues, including health care waste; solid waste generated from open burning; electronic waste; agriculture waste; secondary copper production sector; plastic manufacturing, disposal, and recycling; and waste from the pulp and paper sector. By targeting these diverse sources of UPOPs, GEF initiatives work to mitigate their environmental and health impacts, promoting safer waste management practices and reducing harmful emissions on a global scale. Participating countries include

²The EPR approach holds producers responsible for the management of their products throughout their life cycle, including after they are used. EPR aims to support environmental goals like recycling and materials management, and can also encourage product design innovations.

China, Indonesia, Kazakhstan, Kyrgyzstan, and Viet Nam in Asia; Belize in the Caribbean; Kenya, the Arab Republic of Egypt, and Senegal in Africa; and Armenia in southern Europe.

Most UPOPs projects achieved outcome and sustainability ratings in the satisfactory/likely range. Of the 12 projects addressing UPOPs, 10 received outcome ratings, all of which were rated as satisfactory and 8 of which were rated as likely to be sustainable. All five health care waste projects received satisfactory outcome ratings, although one—Sound Chemicals Management Mainstreaming and UPOPs Reduction in Kenya (GEF ID 5689, UNDP)—was rated as unlikely to be sustainable. One electronic waste project in Egypt—Protect Human Health and the Environment from Unintentional Releases of POPs Originating from Incineration and Open Burning of Health Care- and Electronic-waste (GEF ID 4392, UNDP)—received both a satisfactory outcome rating and a likely sustainability rating.

Most GEF-5 and GEF-6 UPOPs projects met or exceeded their reduction targets. Most GEF-5 and GEF-6 projects with available indicators met their targets for UPOPs reduction, measured in grams of toxic equivalent per year. Both of China's projects—one focused on the pulp and paper sector and the other on secondary copper production—performed exceptionally well. Viet Nam's project on solid waste exceeded its target by 20 percent. UPOPs projects in Indonesia and Senegal successfully met their targets in the plastic and solid waste management sectors, respectively. However, Egypt's electronic waste project achieved only 71 percent of its target, and Kenya's project in the solid waste sector reached just 66 percent of its target.

High-performing projects included a comprehensive approach to UPOPs reduction emphasizing technology, regulatory frameworks, and institutional capacity building. UPOPs health care projects in Africa, the Middle East, and Central Asia aimed to reduce mercury and improve waste handling. These projects employed BAT/BEP to phase out mercury-containing devices, manage mercury

waste to prevent environmental contamination, introduce nonincineration technologies such as autoclaves, and strengthen national regulations and capacities. A common focus across these projects was building regulatory frameworks, enhancing institutional capacities (e.g., health care facilities), and promoting the adoption of BAT/BEP. These shared strategies reflect a comprehensive approach to improving health care waste management and reducing the risks of UPOPs generation. All five health care projects were successful, with an average outcome rating of moderately satisfactory. However, sustainability remained a challenge.

The successful introduction of new technologies depends on local resources and maintenance support. As highlighted earlier, replacing incinerators with autoclaves or mercury elimination machines was successful in countries including Jordan, Trinidad and Tobago, and Uruguay. In these countries, skilled operators were available, project-based training was provided, and sufficient budgets were allocated for electricity costs and staff time. In Senegal, however, introduction of the new machinery faced challenges. Once the maintenance contract expired and a crucial spare part was unavailable, the autoclave stopped functioning, leading to the accumulation of toxic medical waste in and around the facility just two years after the project's completion. Mercury replacement efforts also succeeded with capacity building and innovation, as demonstrated by the Global Greenchem Innovation and Network Programme (GEF ID UNIDO, 10353). However, when tools needed for proper disposal were not available, the process of eliminating mercury-containing medical devices was only partially completed; this was the case, for instance, in Indonesia. To address these challenges, starting with GEF-7, the GEF has supported indigenous technologies while actively involving women and youth through initiatives such as the FARM program, the Integrated Program on Eliminating Hazardous Chemicals from Supply Chains, and the upcoming iCOAST and FARM+ programs.

Efforts to manage electronic waste collection have had mixed success. In Jordan, the Reduction and Elimination of POPs and Other Chemical Releases through Implementation of Environmentally Sound Management of E-Waste, Healthcare Waste and Priority U-POPs Release Sources Associated with General Waste Management Activities (GEF ID 9189, UNDP) project aimed to formalize informal electronic waste collectors. It fell short of its targets due to the dominance of the informal sector and challenges in formalization. In contrast, a UPOPs project in Egypt mostly met its electronic waste collection goals. This was achieved through an initiative led by multinational mobile phone companies, which created an online platform for household electronic waste collection, laying a strong foundation for expanding national waste electrical and electronic equipment (WEEE) facilities.

Effective regulation, including EPR and landfill bans, is key to successful private sector involvement in electronic waste management. In electronic waste management, regulation plays a crucial role in encouraging private sector participation. When legislation ensures coverage of collection costs, the private sector has a clear incentive to get involved. However, for this model to be effective, the disposal of electronic waste in landfills must be prohibited. Implementing EPR is another proven approach to successfully engage the private sector in electronic waste recycling efforts.

Of the five projects focused on the Global Framework on Chemicals, three reported private sector involvement. Four of the five projects addressed WEEE, and one targeted lead pollution. In China, under the global SolarChill Development, Testing and Technology Transfer Outreach (GEF ID 4862, UNDP) project, substantial cofinancing was provided by domestic WEEE facility operators. Projects in Egypt and Jordan facilitated the formalization and licensing of private sector companies for WEEE processing, enabling two operators in Egypt and eight companies in Jordan to handle materials from electronic waste generators. In contrast, the Investment

Promotion on Environmentally Sound Management of Electrical and Electronic Waste project in Ethiopia (GEF ID 5040, UNIDO) saw limited private sector engagement, but offered a key insight: the primary driver for electronic waste recycling is regulatory pressure.

More recently, GEF-7 and GEF-8 projects work closely with the private sector to manage electronic waste and other waste streams, albeit with limited engagement with upstream producers. For instance, the Improved Management of Ewaste and Healthcare Waste to Reduce Emissions of Unintentionally Produced POPs in Egypt (GEF ID 10879, World Bank) project plans to jointly manage electronic waste and health care waste in collaboration with the private sector, including shopping malls. A GEF-8 project, Reduced Risks on Human Health & the Environment through Reduction of POPs & U-POPs in Eswatini (GEF ID 11272, UNDP), aims to tackle health care waste, single-use plastics, electronic waste, and household organic waste. A more recent program to finance electronic waste management is the Global Electronics Management (GEM) Program (GEF ID 11553, UNIDO) approved in June 2024. While a sectoral approach to chemicals management may be efficient—especially with the increasing number of chemicals listed under the Stockholm Convention—there is a risk of resources being spread too thin across numerous targets at the end of a product’s life cycle, potentially neglecting collaboration with upstream producers.

Private sector involvement in health care waste management projects was limited, but was useful in some instances in maintaining health care equipment. The five completed projects on health care waste management with terminal evaluations reported minimal or no involvement of the private sector. This was primarily because most of the beneficiary health care facilities selected were public (government) hospitals. However, in Egypt, a key breakthrough for private sector participation was the adoption of a new waste management law, which reclassified sterilized health care waste as nonhazardous, enabling its use in the production of refuse-derived

fuel. Furthermore, the project revised the health care waste treatment tariff, raising the rate and creating new opportunities for private sector investment in health care waste treatment facilities.

Engaging the private sector in cofinancing and maintaining health care waste equipment proved highly beneficial for several projects. In Kazakhstan and Ghana, private sector involvement in health care waste management was successfully achieved through cofinancing and technology adoption agreements (GEF IDs 4442 and 4611). In Jordan, a health care waste management project improved equipment reliability by establishing a long-term maintenance agreement with an international autoclave supplier. This innovative approach streamlined the identification and repair of malfunctioning equipment, ensuring more reliable preventive and corrective maintenance.

3.5 Socioeconomic impacts

Gender

The prevalence of gender-aware and gender-sensitive projects is increasing in the GEF portfolio, but the number of gender-mainstreamed efforts remains low. Review of the gender dimension in chemicals and waste terminal evaluations revealed a notable increase in the number and proportion of projects classified as gender aware (acknowledging the different roles and responsibilities of men and women) and gender sensitive (using methodologies to address gender inequalities). However, the number of projects incorporating gender mainstreaming—that is, assessing the implications of actions for both women and men—remained modest. Among a portfolio of 51 projects, 27 were gender aware and 29 gender sensitive, but only 1 was classified as gender mainstreamed.

Gender-disaggregated data emphasize the heightened vulnerability of women and their role in raising awareness about chemical dangers. A total of 12 terminal evaluations

provided gender-disaggregated data, primarily focusing on workshop participants. These evaluations typically addressed gender dimensions in relation to vulnerability to harmful chemicals, noting that certain groups—such as pregnant women, children, and impoverished communities—are at greater risk of harm. Women are frequently highlighted for their role in raising awareness about the dangers of chemicals. For example, the Environmentally-Sound Management and Final Disposal of PCBs project in Serbia (GEF ID 4877, UNIDO) developed a brochure specifically addressing the effects of PCBs on pregnant women.

Discussions about women’s involvement in closed projects often focused on their participation in workshops or emphasized the need for increased representation of women among technical managers and decision-makers in the rural sector. For instance, in the Disposal of POPs and Obsolete Pesticides and Strengthening Life-cycle Management of Pesticides project in Benin (GEF ID 4756, UNDP), efforts were made to educate women on pesticide management and the safe handling of empty containers ([box 3.4](#)). However, in addition to raising awareness about the dangers of pesticides, it is essential to provide women with regular health checkups and occupational safety equipment and ensure the enforcement of health regulations. Formalizing informal workers is also critical to safeguarding their well-being.³

Socioeconomic co-benefits

Activities to achieve socioeconomic outcomes have increased in recent years. Of 219 ongoing projects, 60 percent (132) have incorporated socioeconomic outcomes, compared to just 27 closed projects, or 12 percent of all closed projects ([figure 2.6](#)). Socioeconomic outcomes play a critical role in these 132 ongoing projects, particularly

³ An IEO background paper on vulnerable groups and chemicals and waste, including informal waste pickers, is available on request.

Box 3.4 Women and waste management

The central role of women in addressing plastic pollution is evident in the GEF-5 project, Reducing Releases of PBDEs and UPOPs Originating from Unsound Waste Management and Recycling Practices and the Manufacturing of Plastics in Indonesia (GEF ID 5052), but the project also reveals critical gaps in addressing gender-specific risks. The United Nations Development Programme-led project conducted an assessment to understand the needs and roles of both women and men in recycling activities. The findings showed that while women play an active role in the recycling process, they are predominantly tasked with sorting materials. This work involves identifying different types of plastics by relying on methods like smelling the odor from burning plastic or rubbing pieces with gasoline. These practices expose women to significant health hazards, increasing their long-term health risks and financial burdens.

To mitigate these differentiated risks, the project conducted gender-sensitive health and safety training. This highlights the importance of both a gender analysis and a concrete action plan for addressing the specific needs and vulnerabilities of women. Ensuring that gender considerations translate into meaningful measures is key to promoting equitable participation in pollution control efforts. This is in line with the GEF Policy on Gender Equality, which requires a project's gender analysis to feed into a gender action plan or equivalent (GEF 2017).

in communities affected by hazardous chemicals. The designs of ongoing projects tend to integrate environmental protection with expected socioeconomic improvements, particularly in communities reliant on natural resources or engaged in informal economic activities. For instance, the Yield Lab Opportunity Fund I project (GEF ID 11066, Inter-American Development Bank) is expected to demonstrate how advancements in waste management can improve working conditions and create new economic opportunities for informal

waste sector workers. Similarly, the Global Best Practices on Emerging Chemical Policy Issues of Concern (GEF ID 10119, UNEP) project aims to promote sustainable agricultural practices, reducing chemical use while enhancing farmers' economic prospects and health outcomes.

Quantifying health co-benefits in GEF projects is infrequent, due to a lack of indicators and the long-term nature of health impacts.

The removal of legacy fertilizers and the transition to environmentally friendly technologies have, as previously discussed, a substantial positive impact on health. Similarly, the proper storage and treatment of health care waste using incinerators or autoclaves reduces harm to community health. However, recycling of electronic waste, lead-containing batteries, and other waste management practices can have detrimental health effects. Quantifying health benefits from initiatives such as sanitary landfills or electronic waste recycling labs is difficult. Although two projects—one in Kenya and one in Viet Nam—mention health benefits from improved electronic waste management, they do not include indicators to measure these benefits. In Indonesia, the regional Reducing Environmental and Health Risks to Vulnerable Communities from Lead Contamination from Lead Paint and Recycling of Used Lead Acid Batteries (GEF ID 5701, UNDP) project successfully cleaned up a contaminated site where the local community had been dismantling electronic waste and batteries, unaware of the detrimental health effects. It was not until agricultural outputs declined and health issues became apparent that the dangers were recognized. The project financed the site's closure, buried the hazardous equipment under a soccer field, and removed contaminated soil, allowing nature to rebound. However, no health impacts were measured or reported as part of the project.

Among the 72 closed projects with terminal evaluations, only 1 included a health-related indicator.⁴ This project, the Obsolete Pesticides Management Project in Côte d'Ivoire, measured this indicator in terms of number of workshop participants. The direct beneficiaries were those whose health and environmental risks had been reduced through protection from or elimination of obsolete pesticides and associated wastes, or whose income increased (or expenses decreased) due to improved pesticide use. The project reached a total of 153,279 direct beneficiaries, surpassing the target value by 153 percent. As discussed in [section 4.3](#), GEF's recent projects addressing mercury in dental amalgam and skin-lightening creams are expected to yield health benefits and positive socioeconomic impacts.

The GEF's current approach to tracking socioeconomic co-benefits is limited, highlighting the need for a stronger results framework. The evaluation also found that socioeconomic co-benefits are not consistently emphasized during the project design stage, where they are often insufficiently articulated in project descriptions, results frameworks, and theories of change. Currently, the proxy indicator used to track socioeconomic results is the number of beneficiaries, as reflected in Core Indicator 11 introduced during the GEF-7 period, which only provides a quick estimate of the scale of impact on the target population. A challenge is that the GEF lacks a mandate to measure health benefits, which are long-term outcomes that often extend beyond the typical project timeline. While UNEP conducts regular assessments of chemical prevalence for Stockholm Convention countries and chemicals, these studies and their findings are not systematically integrated into GEF projects and do not inform outcomes. Enhanced coordination between UNEP and the GEF on measuring health impacts could greatly improve the alignment and impact of these initiatives.

⁴GEF projects tend to report the number of beneficiaries associated with pollution reduction rather than using direct or standardized health indicators to measure health benefits.

There is an encouraging and clear potential for attaining substantial improvements in health and well-being from GEF interventions in chemicals and waste. An IEO study found that the primary limiting factors in maximizing these benefits are the lagged and indirect nature of their manifestation, limited baseline data and counterfactuals, insufficient quantitative reporting of global environmental benefits realized in interventions, the limited capacity within the GEF and executing agencies to measure and track these co-benefits—and most importantly—low engagement with the health care sector, public health community, and intervention beneficiaries (Hadjimichael and Batra 2019). These limiting factors have translated into the systematic lack of attention to health dimensions of the abatement of chemicals and waste pollution. However, an institutional push to leverage these co-benefits may not only lead to more sustained impact for beneficiaries of GEF interventions, but also would help establish the additivity of GEF involvement.

3.6 Impact on policy reform and policy coherence

Ongoing projects feature an increased focus on legal, policy, and regulatory reform activities. Of the 219 ongoing projects, 121 (or 55 percent) include legal, policy, and regulatory activities, compared to just 36 closed projects (16 percent) that mention similar activities ([figure 2.6](#)). A clear pattern emerges among these 121 ongoing projects, which focus on building robust legal frameworks as a foundation for long-term environmental sustainability. For example, the regional project Accelerate Minamata Convention Compliance through Improved Understanding and Control of Mercury Trade in Latin America (GEF ID 11047, UNEP) aims to improve mercury regulations in ASGM—a sector where regulatory oversight is often weak. Similarly, the Global Replication to Eliminate Hazardous Chemicals from Supply Chains (GEF ID 11177, UNEP) project seeks to develop comprehensive guidelines for the environmentally sound

management of hazardous chemicals, helping countries adopt international standards. These initiatives are designed to align with international conventions, such as the Stockholm and Minamata Conventions, by strengthening national frameworks for chemical management and environmental protection.

The GEF's ability to drive transformational, market-oriented change is grounded in its approach to engaging the private sector and supporting legislative frameworks. This strategy has enabled large-scale, sustainable environmental solutions in several countries. For instance, in Viet Nam, the introduction of eco-industrial park legislation facilitated the nationwide adoption of a resource-sharing model that encourages interconnected industries to optimize resource efficiency by sharing resources, implementing recycling systems, and collectively reducing carbon dioxide emissions. By fostering collaboration among neighboring companies, this action not only minimizes waste but also promotes sustainable practices. Additionally, the integration of cutting-edge technological innovations enhances operational sustainability, further showcasing the success of the GEF's approach to fostering impactful change across the country.

Similarly, Indonesia and Mexico implemented EPR laws; and several other countries—including Cameroon, Côte d'Ivoire, Ethiopia, Indonesia, the Philippines, Tanzania, and Viet Nam—made significant progress in drafting and passing lead regulations, further demonstrating the importance of regulatory frameworks in achieving large-scale environmental impact. In projects in China and Egypt, methodical efforts to formalize workers, supported by incentives and strong regulatory frameworks, have helped enhance project results and reduce pollution. In China, where electronic waste is a growing concern, a project used financial incentives to formalize informal recyclers, reducing harmful emissions and promoting sustainable practices. In Egypt, informal collectors initially resisted formalization due to insufficient incentives, which delayed progress and cooperation. This resistance persisted until legislation

was enacted, banning the informal collection and dismantling of electronic waste. This shift in approach was essential for reducing pollution risks, particularly UPOP emissions from electronic waste processing. With the law in place, the project team moved toward formalizing the sector by licensing select waste managers, thereby creating a more structured and regulated system.

Successful legislative efforts in GEF projects are often hindered by short time frames and challenges in enforcement; formalization can also be complex. While the preparation of new legislation or amendments to existing laws has generally been successful, limited project time frames are not always conducive to effectively introducing policies and legislation. Moreover, enforcement remains a significant obstacle in many countries, requiring more training and awareness-raising efforts to ensure proper implementation and compliance. Formalization efforts can also be complex and may require broader macroeconomic changes, including enhanced social protections for informal workers (Ghorpade, Restrepo, and Castellanos 2024). Successfully formalizing large groups of workers demands a step-by-step approach that addresses structural barriers,⁵ often requiring significant reforms that can be challenging to implement.

The GEF appears to play a key role in fostering interministerial collaboration and enhancing policy coherence. Though policy coherence is interpreted differently across countries, officials in Indonesia and Viet Nam agree that the GEF plays a pivotal role in fostering interministerial collaboration on projects. Institutionalized dialogues between ministries and regular meetings at the national level are essential for improving policy coherence. In Indonesia, a GEF-financed textile project—Reducing Uses and Releases of Chemicals of Concern, including POPs, in the Textiles Sector (GEF ID 10523, UNEP)—enabled the first formal collaboration between the Ministry of Environment and Forestry and the Ministry of Industry. This

⁵Source: Interview with Ulrike Lehr, Senior Economist, Jobs Group, World Bank Group, June 20, 2024.

collaboration was particularly significant because both had previously struggled to coordinate on issues such as the business permitting process and to agree on a list of chemicals of concern for the industry.

Viet Nam has a mechanism for interministerial cooperation through a steering committee. The GEF, alongside the country's government, used this mechanism to coordinate efforts among 17 officials from various ministries in the UNIDO-led eco-industrial park initiative. Eco-industrial parks require input from multiple ministries, each responsible for different aspects of industrial development—such as waste and waste management by the Ministry of Natural Resources and Environment, and cleaner production by the Ministry of Industry and Trade. Their cooperation is essential for the success of industrial symbiosis, where byproducts from one factory are used by another—as in Ninh Binh, where a gas

company captures and repurposes byproducts from a fertilizer factory. The new legislation on eco-industrial parks enabled the nationwide scale-up of project results, expanding the impact across the country.

Other GEF-supported projects have facilitated synergies between ministries. For instance, the Environmental Sound Life-Cycle Management of Mercury Containing Products and Their Wastes (GEF ID 4998, UNDP) project in Uruguay promotes collaboration between the Ministry of Environment and the Ministry of Health; while a PCB project in Indonesia involved close cooperation between the Ministry of Environment and Forest and the Ministry of Energy and Mineral Resources.



4

Review of recent projects

The increasing proliferation of chemicals demands a holistic response. Unlike the chemicals originally listed in the Stockholm Convention, many chemicals today cannot simply be banned from import, disposed of, or exported for destruction. Instead, they must be addressed throughout the entire supply chain—from sourcing and processing to distribution, and ultimately, end-of-life recycling or elimination.

This section provides a quality-at-entry assessment of ongoing projects in GEF-7 and GEF-8, which focus on key supply chains related to chemicals and waste in textiles, the food and beverage industry, and dental amalgam, or which adopt a program approach such as the ISLANDS program ([box 4.1](#)) or through the Artisanal Gold Mining Program ([box 4.3](#)).

The portfolio for GEF-7 and GEF-8 includes 10 parent programs with 61 child projects and 108 stand-alone projects. With only two midterm reviews available for GEF-7 projects, the quality-at-entry analysis was primarily based on CEO approval documents, where available. The analysis indicates a significant growth in interventions focusing on socioeconomic outcomes; legal, policy, and regulatory measures; and environmental monitoring. GEF-7 and GEF-8 project designs incorporated legal, policy, and regulatory measures in 55 percent of ongoing projects. These projects focused on developing EPR frameworks for waste management, particularly in the electronics sector, and aimed to strengthen institutional capacity for regulatory enforcement. Additionally, the designs emphasized circular economy policies, including the development of action plans and standards—especially in sectors like waste management and sustainable urban planning. A strong focus is also placed on ensuring compliance with international environmental standards and agreements. Even though the percentage of projects focused on legal, policy, and regulatory measures has increased in ongoing projects compared with closed ones, the nature of activities is not different from those encountered in closed projects.

Box 4.1 GEF support for chemicals and waste in SIDS: the ISLANDS program

The Implementing Sustainable Low and Non-Chemical Development in SIDS (ISLANDS) program launched under GEF-7 aims to assist small island developing states (SIDS) in moving toward sustainable chemical management. The program strengthens SIDS' capacity to control chemical and material inflows while providing resources for long-term waste management. It comprises six child projects: a global project focused on communication and knowledge management and five regional projects across the Caribbean and the Pacific, Atlantic, and Indian Oceans.

The ISLANDS Pacific Child Project (GEF ID 10267, UNEP) established three objectives: implement effective mechanisms to control imports of chemicals and products generating hazardous waste; ensure environmentally sound disposal of harmful chemicals and materials; and prevent harmful material accumulation through circular and life-cycle management systems with private sector engagement.

An IEO evaluation revealed significant implementation challenges in the child project (GEF IEO 2026). While the project was designed collaboratively with the Secretariat of the Pacific Regional Environment Programme and stakeholders to align with the GEF's strategic aims, its ambitious components—including harmonized regional policies and centralized waste treatment facilities—encountered

substantial implementation barriers. Notable successes included the Mercury Free Pacific Campaign and the Tide Turners youth initiative, which engaged 700 youth across Samoa and Tonga. In Samoa, Brown Girl Woke's partnership with Rugby Plus Samoa expanded a training of trainers program to 10 additional schools; Tonga's No Pelesitiki Campaign mobilized 400 youth in environmental activities.

Key challenges emerged in project governance, particularly in the stakeholder regional project coordination group's effectiveness. Stakeholders emphasized how individual country allocations impeded regional cooperation. Interviews consistently highlighted that the program's complexity and management challenges in Pacific SIDS demonstrate the need for streamlined objectives and realistic timelines, considering SIDS ministries' limited capacity.

The implementation experience identified three critical success factors for future initiatives in the Pacific: more adaptable frameworks, simplified governance structures, and implementation timelines aligned with SIDS operational capabilities. These findings accentuate the importance of balancing ambitious environmental goals with practical implementation considerations in regional development programs.

Source: GEF IEO 2026.

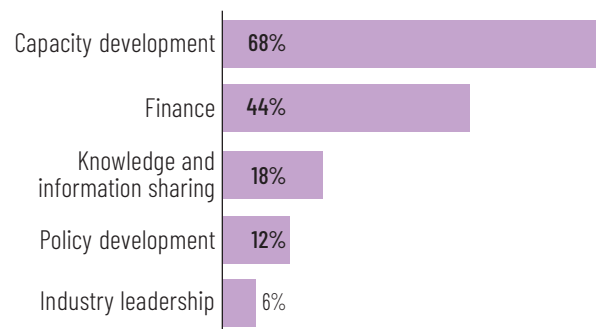
Compared to closed projects, ongoing projects show a much greater focus on expected socioeconomic outcomes. In 60 percent of ongoing projects, activities were designed to achieve socioeconomic outcomes. These initiatives included job creation through waste management, recycling, and the promotion of green technologies. A strong emphasis was placed on creating opportunities for women, youth, and vulnerable groups, as well as supporting gender-responsive entrepreneurship. The projects also aimed to improve health and safety conditions for workers in sectors such as manufacturing

and agriculture, while capacity-building efforts focused on training and skill development to empower communities and improve livelihoods.

More than two-thirds of the reviewed projects engage the private sector primarily through capacity development, typically in the form of technical assistance; 44 percent use financing schemes. The reviewed projects comprise 20 GEF-7 and 14 GEF-8 private sector projects, all of which are part of integrated or sectoral approaches. In some cases, projects are classified based on more than one primary

engagement method (figure 4.1). This engagement aims to transform core business operations to align with environmental goals, often by offering workshops, demonstrations, or facilitating access to financing for businesses. For example, a project in Morocco’s construction sector—Eliminating Hazardous Chemicals from the Supply Chain of the Construction Sector in Morocco (GEF ID 11428, UNIDO)—is set to provide capacity building for the growth of green businesses, including support through incubators and innovations in alternative materials. Similarly, a regional child project under the FARM program in Asia focuses on training farmers and farmer associations to adopt greener and eco-friendly alternatives to conventional pesticides.

Figure 4.1 Types of private sector engagement in 34 GEF-7 and GEF-8 chemicals and waste projects (%)



Source: Project documents for 34 GEF-7 and GEF-8 private sector projects.

Note: A single project may involve multiple forms of private sector engagement.

Financing schemes used include facilities secured by first-loss guarantees (Global Programme to Support Countries to Upscale Integrated Electric Mobility Systems; GEF ID 11075, UNEP) and the mobilization of private sector investments through fiscal incentives and solar energy feed-in schemes (Eliminating Hazardous Chemicals from Supply Chains in Cambodia; GEF ID 11170, UNEP). Two projects—Establishing a Circular Economy Framework for the Plastics Sector in Ghana (GEF ID 10401, UNIDO) and Integrated Management and Environmentally Sound Disposal of POPs

Pesticides and Mercury in Healthcare and Agricultural Sectors in Sri Lanka (GEF ID 10868, UNDP)—include specific plans to develop public-private partnerships to mobilize sustainable financing for pollution and waste management. Multiple projects, including child projects of the Supply Chain Integrated Program in Mongolia and in Trinidad and Tobago, focus on working closely with financial institutions to create funding facilities or financial products that support businesses addressing chemicals and waste issues.

4.1 Integrated program in the textiles sector

The textile industry, faced with multiple environmental demands, is a good candidate for an integrated approach to sustainability. The need to decarbonize, reduce POPs, lower water consumption and pollution, and increase the use of recycled materials must be balanced with the sector’s global competitiveness. If designed and implemented well, an integrated approach not only helps align these goals under a unified strategy but also enhances efficiency in achieving them—particularly in meeting commitments under international conventions on POPs.

A recent UNEP report notes that the sustainability challenges of the textile value chain are expected to intensify. Global demand is projected to reach \$2 trillion by 2027, with 63 percent of this growth coming from emerging markets (UNEP 2023). As demand increases, so does the urgency to address the environmental impacts of the textile industry. Transforming the textile value chain to adopt circular practices presents a crucial opportunity to tackle the interconnected crises of climate change, biodiversity loss, and pollution.

For effective transformation, goals must be tailored to the specific production and consumption regions that are central to the textile industry. Localized strategies are key to addressing region-specific challenges while fostering

sustainability across the entire value chain. Circular business models that focus on reducing waste, reusing materials, and investing in sustainable practices are becoming essential.

The GEF-7 and GEF-8 programming directions have focused on the important aspects of the textile supply chain for addressing POPs and other harmful chemicals, albeit with significant gaps. Figure 4.2 demonstrates that GEF programming and activities target critical steps along the supply chain. They help companies identify chemicals used; transition to alternative chemicals; and improve health and safety conditions, regulations, and recycling. A key gap in the supply chain not currently addressed by the GEF is packaging and transportation. Project designs, in general, take a systemic approach, from the raw material sourcing, design, production, consumption, waste management, including recycling, to the end-of-life solutions, while also addressing regulation, knowledge management, and scaling up.

The GEF's textile projects were designed to target key textile-producing countries across Asia, Africa, and Latin America, guided by technical criteria. In Asia, the program has engaged with major textile and garment producers, including in Bangladesh, Cambodia, China, India,

Indonesia, Mongolia, Pakistan, and Viet Nam. In Africa, the focus was on Ethiopia, Lesotho, Madagascar, and South Africa; while in Latin America, the program included Costa Rica, Ecuador, Peru, and Trinidad and Tobago. Some garment-producing countries, such as Egypt, Morocco, Tunisia, and Türkiye, were not part of the program, largely due to nonparticipation.¹

In general, the design of the textile projects is comprehensive, addressing key intervention points throughout the supply chain related to POPs. Review of CEO approval documents indicates that early implementation experience has revealed advantages and opportunities, as well as challenges.

Textile projects have been designed to offer a range of solutions for participating countries. These include (1) certification and voluntary compliance measures, (2) promoting sustainable chemistry and textile recycling, (3) reducing chemical use among suppliers, and

¹The program employed a competitive selection process with limited funding. While Türkiye did submit an expression of interest, its application was focused on fashion, which was deemed not sufficiently transformative to meet the program's criteria.

Figure 4.2 Textile supply chain with environmental impact and GEF programming and activities



(4) addressing market failures and supply chain fragmentation. For instance, textile projects in Asia focus on introducing certification and voluntary compliance measures to encourage companies to reduce the use and release of priority chemicals of concern, including POPs, within their facilities; this was found in the regional textiles project involving Bangladesh, Indonesia, Pakistan, and Viet Nam. In Africa, projects involving Lesotho, Madagascar, and South Africa address both upstream factors, such as resource efficiency and sustainable chemistry; and downstream aspects, like the reuse, recycling, and transformation of textile and garment waste into economically viable and socially beneficial products and services. Additionally, a global project approved under GEF-8 and currently at the project identification form (PIF) stage aims to identify opportunities for reducing chemical use in textile production among participating suppliers. A recently approved integrated program involves Cambodia, Costa Rica, Ecuador, India, Mongolia, Pakistan, Peru, and Trinidad and Tobago. It promotes South-South and triangular cooperation in the fashion and apparel industry to tackle systemic issues, such as market inefficiencies and supply chain fragmentation, and the lack of formal collaboration frameworks for knowledge sharing involving the private sector.

Limited implementation experience reveals three key design factors in recent textile sector projects. Since most chemicals and waste projects in the textile sector were only approved recently, there is limited implementation experience so far. However, an analysis of project design quality reveals three common factors across these projects:

- Increased focus on the upstream sections of the textile and apparel value chain, specifically through direct technical assistance to suppliers
- Support for technology transfer by identifying and assessing BAT/BEP investments to promote resource-efficient and cleaner production

- Active engagement with the private sector to drive sustainable practices.

The projects primarily target and rely on global supply chains and major players in the textile and apparel sector at both the global and national levels. Experience from the GEF-5 project in China shows that large textile enterprises have already implemented strict manufacturing standards and are sufficiently financially robust to allocate appropriate budgets for procuring eco-friendly dyes and chemicals from selected suppliers to ensure high-quality products. In contrast, smaller textile enterprises, which may not be as financially strong, might opt for non-eco-friendly dyes to increase profitability, as the selection of chemicals directly affects their bottom line.

GEF projects in the textile and apparel sector do not currently prioritize the inclusion and support of small and micro enterprises, which dominate the industry in many countries, particularly in East and Southeast Asia. Successful sectorwide interventions depend on providing these smaller enterprises with targeted technical assistance to transition to eco-friendly practices. Additionally, large chemical enterprises have dominated data and information sharing, while smaller companies are less cooperative. The information and data shared through the communication platform primarily came from large, leading chemical enterprises in the industry. Small size enterprises were less cooperative and rarely contributed data and information. Without a focus on small enterprises, the overall impact and sustainability of environmental improvements in the sector will be limited.

GEF projects have had limited collaboration with chemical suppliers, with recent improvements. One key lesson learned from GEF projects is the importance of involving chemical suppliers in addressing POPs challenges. Since many textile companies rely on imported chemicals that often lack proper labeling or safe handling instructions, working with suppliers across the supply chain becomes critical. Stakeholders have highlighted

the need for better collaboration at this level to ensure the safe and sustainable use of chemicals within the textile industry. A recent improvement in this area was observed in Viet Nam, which conducted a comprehensive inventory of the industry before selecting companies for pilot programs to test eco-innovations in chemicals management.

There is significant potential to expand South-South cooperation by fostering expert exchanges that go beyond simple information exchange and routine check-ins. The regional textiles project in Bangladesh, Indonesia, Pakistan, and Viet Nam is exploring opportunities for expert exchanges and institutionalized knowledge sharing through formal associations. For instance, stakeholders in Viet Nam have expressed interest in learning from an Indonesian expert currently conducting policy mapping for the project in Indonesia, highlighting the value of cross-country collaboration to enhance project outcomes.

4.2 Circular approaches along the supply chain in the food and beverage industry

In less than a century, plastic pollution has become one of the most urgent environmental challenges, driven by the rapid increase in disposable plastic product production, which has outpaced the world's capacity to manage it. There is a strong connection between POPs and plastics, which the GEF is addressing through initiatives in the food, beverage, and construction industries. Certain POPs, such as short-chain chlorinated paraffins (SCCPs), PCBs, and polybrominated diphenyl ethers (PBDEs), have been widely used as chemical additives in plastics, especially in electronics, automotive, furniture, and toy manufacturing, despite being banned under the Stockholm Convention. The burning of plastics containing chlorinated and brominated additives can

unintentionally release harmful POPs such as dioxins. As a result, the GEF's chemicals and waste focal area prioritizes the production, legacy management, and disposal of these plastics to mitigate environmental and health risks. A recent report identifies key players in the plastics value chain as primary plastic polymer producers, plastic product manufacturers (or converters), end-use industries, and both mechanical and chemical recyclers (Oxford Economics 2024).

The GEF's approach to plastic management in the food and beverage sector has evolved across its focal areas. Traditionally, the chemicals and waste focal area addressed plastics from various sources. During GEF-7, a collaborative initiative between the international waters and chemicals and waste focal areas introduced a circular economy approach to plastics. In GEF-8, the food and beverage sector continues to benefit from targeted support through this integrated program, while the chemicals and waste focal area focuses on managing specific types of plastics, particularly those that are challenging to handle. This strategy reflects the GEF's effort to address plastic pollution through a holistic approach across various sectors and focal areas.

The GEF has primarily addressed plastic pollution at the end-of-life stage and in waste management. However, it is now shifting toward tackling the issue earlier in the supply chain, with a focus on the food and beverage industry as one key entry point.

Projects specifically targeting plastic pollution were absent in GEF-5 and scarce in GEF-6. The three GEF-6 projects have only relatively small components on plastics, primarily focused on capacity building and general support for managing plastic waste, including efforts in collection, recycling, and clean-up. Only one of these projects—Integrated Environmental Management of the Rio Motagua Watershed (GEF ID 9246, UNDP)—set a concrete goal for plastic waste reduction, aiming for a 20 percent decrease, equivalent to 21,900 metric tons. Planned activities included integrating proper management of chemicals and wastes, such as UPOPs

and plastics, into the watershed management plans and monitoring systems of key institutions in the Guatemalan watershed. The project aims to eliminate at least 6 percent of illegal dumpsites and reduce plastic waste in dumpsites by 8 percent. Three pilot projects will focus on reducing solid waste, improving waste disposal practices, and eliminating open-air burning. According to the latest project implementation report, the project was rated high risk, with moderately unsatisfactory ratings for development outcome and implementation progress.

The GEF-7 chemicals and waste portfolio saw a significant increase in projects addressing plastic pollution, with seven approved initiatives. However, only four of these projects set specific targets for reducing plastic pollution through a circular economy approach. The remaining three focused on providing general support for plastic pollution management. Together, the GEF-7 projects committed to reducing 443,721 metric tons of plastic.

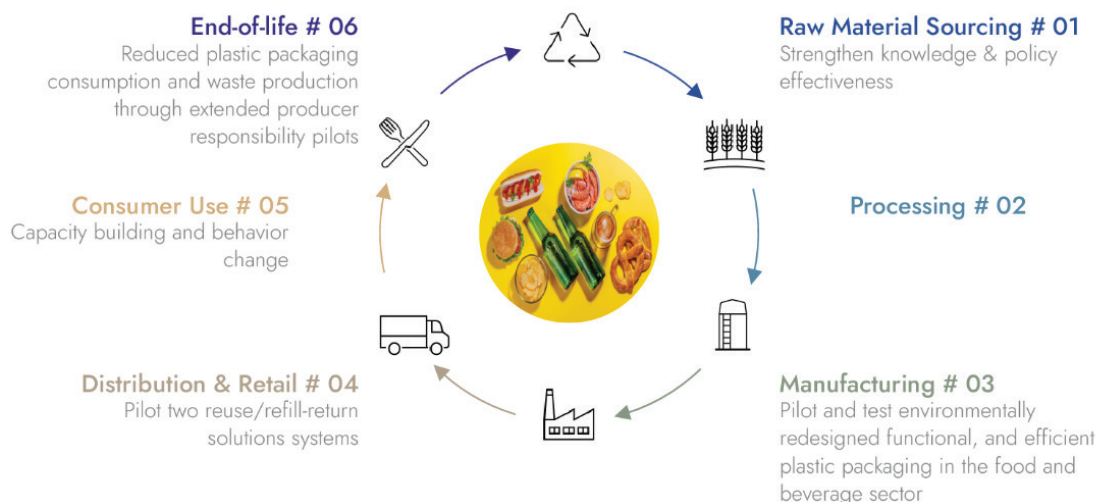
GEF-8 takes a more structured approach to tackling the root causes of plastic pollution, aiming for a systemwide transformation through the Circular Solutions to Plastic Pollution Integrated Program. The program emphasizes early interventions in the plastic value chain, focusing on upstream and midstream actions to reduce plastic production and consumption. The proposed circular solutions focus on eliminating single-use plastic products and packaging, reducing reliance on crude oil as the primary feedstock; promoting circular design in materials, products, and business models; and ensuring active circulation of materials and products through reuse and refill systems.

The program, consisting of a global platform project and 15 national projects, tackles plastic pollution through a variety of collaborations. Specifically, it will collaborate with governments to develop circular policies, with businesses to adopt circular practices, with financiers to invest in circular solutions, and with the public to raise awareness and shift consumer behavior. Collectively, the projects under the integrated program are

expected to deliver significant global environmental benefits, including improved governance of one shared water ecosystem, mitigation of 16 million metric tons of carbon dioxide equivalent, and the elimination of 10 million metric tons of hazardous chemicals. In addition to the integrated program, three stand-alone GEF-8 projects use circular approaches to address plastic pollution, collectively aiming to reduce a further 101,000 metric tons of plastic waste.

Projects under the global Shifting to Zero Waste Against Pollution (SWAP) Initiative (GEF ID 11211, UNDP) address plastic pollution and are expected to generate socioeconomic benefits alongside environmental gains. These include diversified livelihoods and economic growth, improved labor conditions for informal workers, and better human health. Furthermore, job creation is expected to rise from new business opportunities linked to zero-waste solutions. The GEF's approach to plastic management adopts a two-pronged strategy. The GEF-8 Circular Solutions to Plastic Pollution program aims to promote a circular economy for plastics within the sector, while projects under the chemicals and waste focal area target hard-to-manage plastic types.

The GEF's approach to addressing plastic pollution in the food and beverage industry addresses key supply chain issues, but requires further upstream engagement. While GEF-8 projects on packaging are still pending approval, past efforts have focused on the end of the supply chain, including refill stations, recycling, and waste management. These are critical areas, but there is a growing need to address packaging upstream, particularly through EPR legislation. Previous GEF-financed projects did not engage with packaging companies to promote design for recyclability, highlighting a critical area for improvement. In contrast, the GEF-8 Circular Solutions to Plastic Pollution integrated program has reached out to industry leaders including Coca-Cola and Nestlé, two of the largest companies in the sector ([figure 4.3](#)).

Figure 4.3 Food and beverage supply chain and GEF programming and activities

The main challenge for GEF interventions in the food supply chain under the chemicals and waste focal area is that the primary environmental impacts of food production occur in other focal areas. As highlighted in an Organisation for Economic Co-operation and Development report, the agri-food life cycle involves multiple stages, each with distinct environmental effects (OECD 2022a). These impacts include greenhouse gas emissions from energy use; land use changes like deforestation due to increased demand; and various forms of waste, including food loss and packaging materials. Addressing these broader environmental issues typically falls under the GEF's land degradation, biodiversity, and climate change focal areas.

Although most waste generated by the food industry is organic, chemicals and waste interventions are focused primarily on chemical waste, such as food packaging. The GEF currently supports key steps in the food supply chain, such as raw material sourcing, manufacturing, and end-of-life processes, with some efforts aimed at reducing plastic waste during distribution and retail.

Although the GEF does not target the upstream stages of food production directly, there is potential for intervention through

resource-efficient and cleaner production in the agri-food industry. This approach offers a comprehensive framework for managing materials and processes; promoting waste elimination, water management, and energy efficiency; and ensuring quality and safety in food production. Additionally, it could influence consumer behavior by encouraging the adoption of sustainable practices in food product development. However, the most effective modalities for such interventions have yet to be determined.

Sustained impact will require complementary local solutions in addition to addressing broader supply chain issues. While the GEF focuses on the right entry points, no single program or project can provide all the solutions for one country or sector, especially when addressing multiple chemicals. The impact of these efforts is localized and influenced by factors such as public awareness of the need to recycle plastics and reduce open burning, consumer preferences, and the ability to engage with the private sector—particularly the food and beverage industry—to effectively address air quality and ensure the sustainability of project outcomes ([box 4.2](#)).

Box 4.2 Opportunities missed by Viet Nam recycling project

As part of the Viet Nam POPs and Sound Harmful Chemicals Management Project (GEF ID 5067, UNDP), two brick production lines were established in the villages of Phan Boi and Minh Khai, where recycled plastics were transformed into construction bricks. Despite the successful construction of two durable buildings, there was little market demand for these bricks, resulting in the closure of the production lines after the project ended.

The project also missed an opportunity to create a more sustainable solution by collaborating with the private sector. For example, the Minh Khai recycling facility was located near a PepsiCo production plant, presenting a potential partnership for corporate responsibility in managing plastic waste, according to representatives from the Viet Nam Cleaner Production Centre Co. Ltd. and Vina Color, who were involved in setting up the production line.

4.3 GEF approach to addressing mercury

The GEF has been tackling mercury release into the environment through a multipronged strategy, including interventions in gold mining (box 4.3), battery dismantling, dental amalgam, and skin-lightening products. The present evaluation assessed two ongoing mercury-related projects begun in GEF-7: (1) Accelerate Implementation of Dental Amalgam Provisions and Strengthen Country Capacities in the Environmental Sound Management of Associated Wastes under the Minamata Convention (GEF ID 10936, UNEP), and (2) Eliminating Mercury in Skin Lightening Products (GEF ID 10810, UNEP). While mercury use in these products is relatively small compared to other sectors, their harmful effects on human health and the environment are significant.

Box 4.3 GEF interventions in artisanal and small-scale gold mining aim to reduce mercury

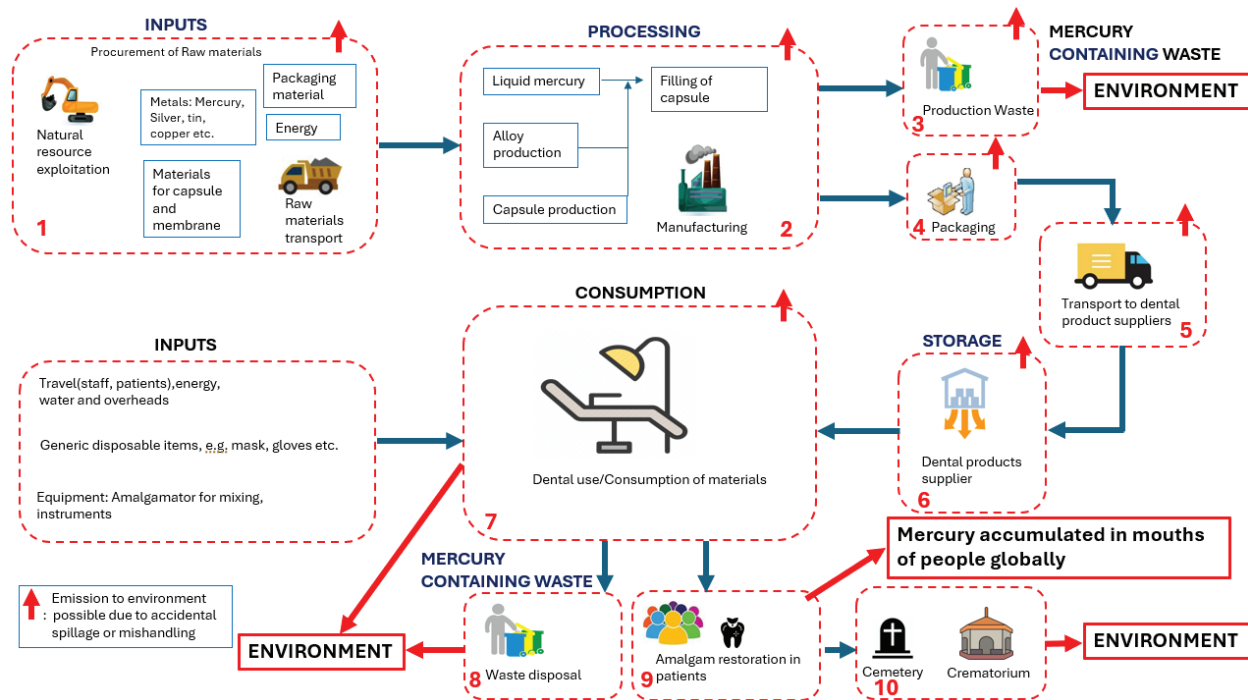
GEF projects and programs in the artisanal and small-scale gold mining (ASGM) sector have evolved over time, incorporating lessons from earlier initiatives and collectively constituting one of the most prominent global efforts to reduce mercury use in the sector. The evaluation found that ASGM interventions are highly relevant to the Minamata Convention on Mercury, with many enabling activities supporting countries in meeting their convention obligations, while larger investment projects tended to focus on countries with high levels of engagement in the convention. In particular, mercury use reductions were reported at project completion for three GEF ASGM projects covering Ecuador, the Philippines, and Senegal. Postcompletion evaluations showed that mercury reductions achieved through GEF-supported ASGM projects were largely sustained over time; however, the most common substitute for mercury was cyanidation, a practice not promoted by the projects. In addition, miner formalization increased after project completion, indicating a delayed but catalytic impact of GEF interventions.

Source: GEF IEO 2022b.

Dental amalgam

Dental amalgam is a major contributor to mercury pollution, particularly through waste disposal into wastewater systems.

Figure 4.4 presents the various stages in the life cycle of dental amalgam, illustrating the point that dental amalgam can contribute to the environmental mercury pool at any stage of its life cycle, from production and use to disposal. This highlights the ongoing environmental risks associated with mercury use in dental amalgam, necessitating careful management at all points in the supply chain.

Figure 4.4 Cradle-to-grave life cycle of mercury used in dental amalgam

According to the World Health Organization, the global amount of mercury stored in dental fillings ranges between 3,000 and 5,000 tons (WHO 2023). UNEP estimates that dental amalgam accounts for approximately 21 percent of total mercury consumption (UNEP 2016).

The GEF began addressing dental amalgam as a source of mercury pollution in GEF-5, identifying key gaps in national waste management strategies for mercury-containing products. Various projects during this replenishment period identified critical gaps, including the lack of national plans or strategies for managing waste from mercury-containing products. Additionally, health care waste management systems often did not account for mercury waste streams, underscoring the need for more comprehensive approaches to address mercury pollution effectively. The ongoing GEF-7 project on dental amalgam aims to phase down its use in Senegal,

Thailand, and Uruguay, with each country at different stages of progress.

In Senegal, the prevalence of dental amalgam use is being assessed under the GEF project with early encouraging findings. Preliminary findings suggest that a considerable number of the 500–550 dentists in the country have stopped using amalgam. However, according to estimates from a specialist at the antipoisoning institute, approximately 50 percent of dentists in Senegal still rely on dental amalgam for their practices; this indicates that its use remains widespread despite growing efforts to phase it out. The project aims not only to understand the use of dental amalgam and promote a phasedown in mercury use, but also to ensure the safe disposal of mercury-containing dental amalgam. With no current legislation regulating amalgam and mercury use in Senegal, development of safe disposal guidelines is needed. Since the country lacks facilities

for the safe disposal of mercury, it is anticipated that amalgam waste will need to be shipped to Europe for proper processing. Educating dentists on correct disposal techniques is crucial, although the GEF project is awaiting the completion of a national survey before fully advancing these efforts. In a similar case in Asia, Thailand has also shown progress in phasing down dental amalgam. However, additional assistance is needed in policy setting, education of the health workforce, and waste management.

Uruguay's experience with project implementation was notably successful. The GEF project provided increased visibility to the issue and validated Uruguay's efforts, which helped accelerate the phaseout process. In 2018, the country removed dental amalgam from its oral health services catalogue and classified it as an obsolete material. The project also played a key role in the development and passage of a national decree regulating mercury life-cycle management, with a particular focus on lamps and dental amalgam. The project financed a direct mercury analyzer device, which reduced the analysis time for mercury samples from 48 hours to just 1 hour. Despite its efficiency, demand for the device's use was occasionally lagging at times. Key stakeholders from the health sector noted that without the GEF's involvement, dental amalgam and oral health might have been overlooked, as these issues had not been high on the political agenda.

Skin-lightening products

The GEF's intervention in addressing mercury-containing skin-lightening products represents an initial step toward testing approaches and strategies that support the Minamata Convention. These products pose immediate health risks, primarily to women, yet awareness of their harmful effects, particularly on pregnant women, remains limited. Skin-lightening products continue to contribute significantly to mercury-related public health and environmental issues, despite the ban imposed by the Minamata Convention. Studies indicate that

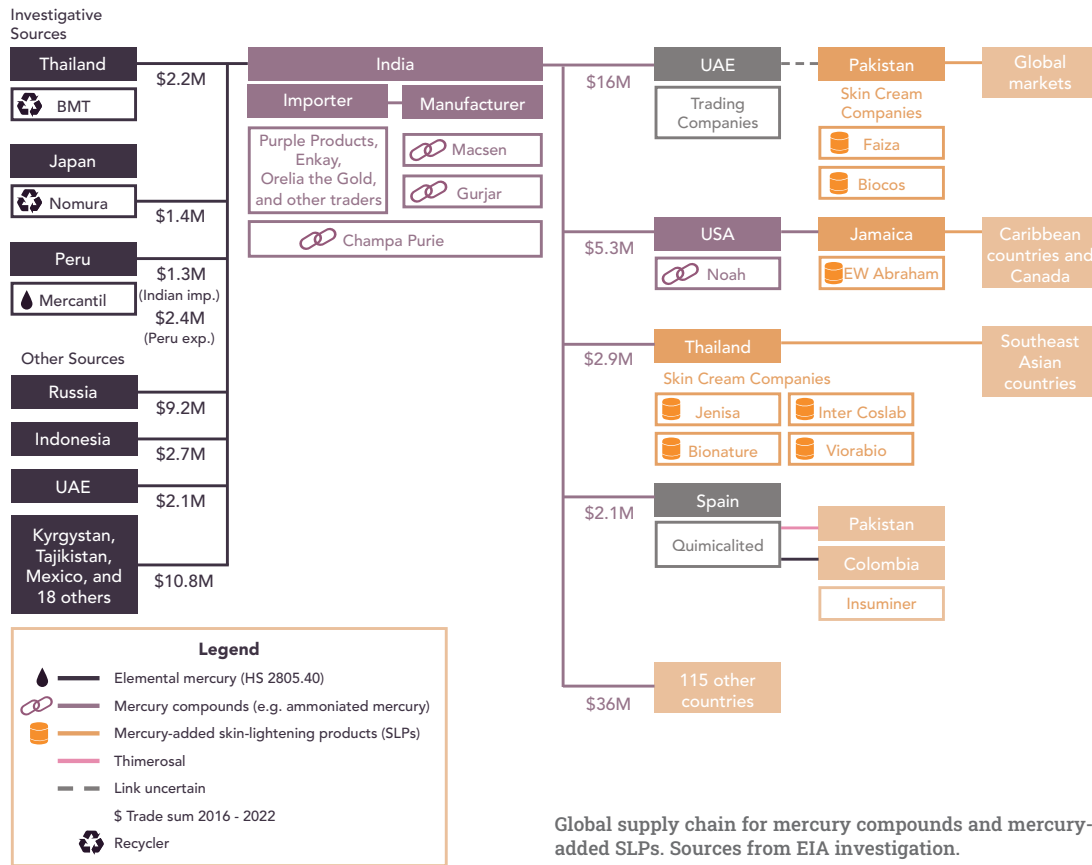
a significant percentage of skin-lightening creams used worldwide contain dangerous levels of mercury. According to a 2017–18 study by the Zero Mercury Working Group, among 338 skin-lightening creams collected from 22 countries, 34 creams (10 percent of the samples) had mercury concentrations ranging from 93 to 16,353 parts per million (ppm), much more than the 1 part per million (1 milligram/kilogram) regulatory limit set by the Minamata Convention.²

Projects address critical points along the supply chain (figure 4.5), but achieving sustained behavior change will be a challenge. The GEF project, with a budget of \$14 million, is being implemented in Gabon, Jamaica, and Sri Lanka, with a reduction goal of approximately 50–55 percent in each country. Project activities are supporting these countries in strengthening legislation, improving policy coherence, enhancing labeling standards, curbing black market sales, and enforcing laws. According to insights from the project team in Jamaica, sustained behavior change is anticipated to be a key focus moving forward, although it remains a significant challenge. The project has faced significant delays in Jamaica due to the COVID-19 pandemic, the impact of Hurricane Grace in 2021, and a smallpox outbreak in 2023, which stretched the Ministry of Health's capacity to prioritize these efforts. In 2025, UNEP will publish studies focused on legislation related to the online sales of skin-lightening products and an assessment of the root causes driving their use, whether for medical or beauty-related reasons.

A key finding is that there is a need for clearer identification and prioritization of the most effective mercury mitigation measures. Currently, it is crucial for the GEF, in partnership with the Minamata Convention and UNEP, to enhance the quantification of mercury sources that pose risks to human health and the environment. In the short term, phasing down the use of and mercury-containing

²Source: Minamata Convention on Mercury [About Us](#) webpage; accessed April 2024.

Figure 4.5 Global supply chain for mercury compounds and mercury-added skin-lightening products



Global supply chain for mercury compounds and mercury-added SLPs. Sources from EIA investigation.

Source: EIA 2023, 6.

skin-lightening creams—as well as of dental amalgam—can be achieved through awareness-raising campaigns, promoting affordable alternatives, and encouraging behavior change. In the long term, a

complete ban on mercury-containing products may become feasible without forcing skin-lightening cream producers into illegality.



5

Conclusions and recommendations

5.1 Conclusions

The GEF has moved from focusing on individual chemicals, such as PCBs, pesticides, and mercury, toward a broader, sectorwide approach. The GEF chemicals and waste portfolio demonstrates a clear shift toward integrated programming, as seen by the increasing allocation of funding to programs and child projects from GEF-5 to GEF-8. An integrated approach to programming is essential for effective chemicals and waste management, particularly in sectors like textiles and food packaging, where chemicals are used extensively throughout the supply chain. The GEF's focus on addressing chemicals at every stage is appropriate and crucial to prevent the proliferation of harmful substances and in ensuring sustainable practices across industries. Without a coordinated effort across the GEF, countries, and the conventions, resources risk being spread too thin, diminishing the impact on overall sustainability goals.

Although this shift presents substantial advantages, it has also led to a reduced focus on legacy chemicals in recent projects, potentially reflecting the changing priorities of national agendas. Despite the decrease in single-chemical initiatives, many countries still urgently need assistance to safely manage and dispose of PCBs to meet the 2028 Stockholm Convention deadline, as well as help with other legacy chemicals to combat pollution and enhance public health. The shift to a sectorwide approach risks creating a critical gap in targeted chemical management support at a time when it is most essential.

The GEF chemicals and waste focal area plays a critical role in helping countries fulfill their obligations under the Stockholm and Minamata Conventions, as well as the Montreal Protocol and the Global Framework on Chemicals. While countries value the GEF's support, challenges persist in accessing finance and obtaining assistance for submitting national implementation plans and Minamata initial assessments from the GEF Agencies. Streamlining access to funding and providing stronger support for countries in navigating these key processes is necessary to maximize impact.

Private sector involvement has been vital for the sustainability of GEF chemicals and waste projects, yet persistent challenges remain to be addressed for broader success. Engaging the private sector remains essential for ensuring long-term impact. The GEF's market-oriented strategies, combined with local business participation and technology transfer, have driven transformational change—especially when supported by enabling legislation that facilitates scaling. In some instances, sustainability was ensured through a combination of GEF financing, government legislation or subsidies, certification schemes, or partnerships with international firms. However, resistance from industries facing intense competition—such as textiles and plating—and the absence of formal collaboration frameworks for knowledge sharing have hindered progress. Addressing these barriers, being more inclusive of small and medium enterprises, and fostering stronger, more structured private sector engagement are key to enhancing the effectiveness and outcomes of future programs and projects.

Smaller firms and chemical suppliers are often overlooked in broader interventions. In developing countries, the textile and apparel industry is predominantly composed of small and micro enterprises, which face significant challenges in adopting sustainable practices due to limited financial resources and technical expertise. Smaller chemical suppliers, which play a critical role in ensuring sustainability across the supply chain, are often overlooked in broader GEF interventions. For industrywide transitions to eco-friendly practices, targeted support for these smaller players is essential. Addressing high-cost barriers and involving suppliers more actively will enable smaller firms to better manage chemicals and adopt sustainable practices across the supply chain. Additionally, there are gaps in certification and labeling of chemicals produced by suppliers that need to be addressed.

GEF projects demonstrate that successful technological innovation in chemicals and waste management involves more than installing new equipment. While advancements in

green chemistry—substituting harmful chemicals with safer alternatives—have been effectively implemented, investments in imported machinery designed to reduce or eliminate harmful chemicals have faced significant challenges. These challenges include underutilization of equipment due to insufficient training, lack of technical knowledge, inadequate budgets for maintenance, and supply chain constraints. Ensuring the effectiveness and sustainability of such investments will require that projects prioritize capacity building and training, and provide adequate financial resources for ongoing operations and future sustainability.

Strong legislative frameworks are crucial for the success of chemicals and waste management projects, but enforcement and outcomes vary widely across countries. Laws such as those covering extended producer responsibility play a key role in securing private sector engagement; setting adequate tariffs for waste collection companies helps maintain consistent service delivery. Legislation has played a crucial role in scaling up pollution prevention. Additionally, formalizing the role of informal waste pickers or banning their involvement in electronic waste collection is vital for reducing health risks and environmental harm. Inconsistent enforcement of these legal measures in some countries has posed significant challenges, ultimately diminishing the effectiveness and sustainability of project outcomes.

The GEF can play a pivotal role in fostering policy coherence. Key approaches toward this include promoting interministerial collaboration and enhancing enforcement and coordination among government agencies (where there is country appetite and capacity), and project designs that encourage coherence. Through GEF financing, ministries with diverse, sometimes conflicting, mandates are incentivized to collaborate, overcoming barriers to cooperation. This alignment enables ministries to address complex environmental challenges in a coordinated manner, rather than working at cross purposes. The GEF has helped promote policy coherence by fostering collaboration

across ministries through innovative project designs including facilitating national dialogues, supporting legislative development, organizing study tours for ministerial staff to learn from other countries, and engaging in awareness-raising and knowledge transfer initiatives. In some smaller countries, the GEF has been less successful in driving policy coherence primarily due to government departments feeling overstretched to take on coordination.

Efforts to achieve socioeconomic outcomes and health co-benefits in GEF projects have grown, but quantifying health co-benefits remains challenging given the absence of indicators and the long-term nature of health impacts.

The GEF's current approach to tracking socioeconomic co-benefits is limited, revealing the need for a stronger results framework. The evaluation found that the GEF lacks standardized indicators for measuring socioeconomic co-benefits, which are inconsistently integrated into project design and monitoring processes. A key challenge is that the GEF lacks a mandate to measure health benefits, which are long-term outcomes that often extend beyond the typical project timeline. Coordination between agencies that collect information on chemical prevalence and the GEF could be utilized to report on environmental outcomes such as chemical pollution that have implications for health outcomes.

GEF projects show progress in gender awareness, but need stronger support for women's health and safety.

The evaluation found a rise in gender-aware GEF projects that recognize distinct roles and address gender inequalities, but progress in fully gender-mainstreamed projects remains limited. Gender-disaggregated data highlight the heightened vulnerability of women, especially pregnant women, to chemical pollution. Although women's participation in workshops and training is noted, there is a need for stronger measures, including health checkups, safety equipment, and stricter regulatory enforcement, particularly for informal female workers.

The GEF's focus on the food and beverage supply chain, particularly at the end-of-life stage, highlights the effectiveness

and sustainability of prevention over remediation. Allowing plastics and packaging waste to accumulate in landfills leads to carbon dioxide and methane emissions, costly geoengineering, and the risk of toxic leakage. This is due to a combination of factors, including limited public awareness, insufficient government involvement in waste management and recycling systems, inadequate legislation, and a lack of education on recycling practices. The GEF's preventative approach, including recycling, composting, and waste reduction, has proven to be sustainable when imported or local technologies are supported by adequate technical capacity and financing. Additionally, integrating informal waste pickers into formal waste management systems enhances both environmental outcomes and social equity, creating a more comprehensive and inclusive strategy for waste management. The GEF's progression toward upstream prevention represents a significant evolution from GEF-5 to GEF-8.

The GEF's efforts to tackle mercury pollution through recent interventions in areas such as dental amalgam and skin-lightening products emphasize the need for focusing on supply as well as behavior change.

Dental amalgam—a significant source of mercury pollution, particularly through improper waste disposal—requires both technical solutions, such as safe disposal facilities, and education for dentists on proper disposal techniques. The GEF is collaborating with customs authorities to prevent illegal imports of mercury, funds educational campaigns, and is supporting assessments of amalgam use in dentistry. Similarly, skin-lightening products remain a persistent source of mercury contamination, despite bans imposed by the Minamata Convention. In this area, the GEF is working on building awareness and with smaller family-owned enterprises producing such products. However, success in reducing mercury use in dental amalgam and skin-lightening products will ultimately depend on both—driving behavior change through awareness raising and supply chain interventions such as better labeling and supporting import bans.

5.2 Recommendations

Recommendation 1: Strengthen the focus on policy and regulatory reforms, awareness, and communication within chemicals and waste projects and programs. The GEF should strengthen its focus on comprehensive policy and regulatory reforms, alongside heightened public awareness and communication efforts. Effective reforms require robust regulatory frameworks, supported by widespread public education campaigns to drive behavioral change, and enhanced enforcement mechanisms to ensure compliance.

Recommendation 2: Strengthen regulatory frameworks and further engagement with the broader private sector, including small and medium enterprises, to enhance project sustainability in chemicals and waste-related projects and programs. Regulatory reforms and compliance with international standards play a crucial role in encouraging private sector participation in chemicals projects. The GEF should assist with reforms including formalizing the informal sector, enforcing antipollution laws, and legislating extended producer responsibility. In addition to strengthening regulatory frameworks, the GEF should continue to ensure the financial viability and technical capacity of small and medium enterprises through investments in advanced technologies and other forms of capacity-building support.

Recommendation 3: Ensure that investments in autoclaves, laboratory equipment, and other machinery for chemicals and waste management associated with indigenous or imported technologies are fully utilized. Local capacity must be addressed to ensure that technical skills of personnel are locally available, thereby minimizing the risk of underutilization. To ensure sustainability, it is essential that personnel receive adequate training, spare parts are readily accessible, and sufficient budgets are allocated for ongoing operation and maintenance.

Recommendation 4: Integrate health co-benefit indicators into project designs and the design and monitoring frameworks. The GEF should, where relevant, incorporate health co-benefit indicators into project design and monitoring frameworks to better capture the impacts of its interventions. By adopting quantifiable indicators, these co-benefits can be effectively measured and tracked across projects. Greater emphasis on these indicators during project design will ensure that they are clearly defined within the project description, results framework, and theory of change, thereby enhancing the GEF's ability to demonstrate both environmental and health-related outcomes.

Evaluation portfolio

GEF ID	Project title	GEF period	GEF Agency	Country	Focal area	Modality	Funding (mil. \$)	
							GEF grant	Cofinancing
4385	Removal of Technical and Economic Barriers to Initiating the Clean-up Activities for Alpha-HCH, Beta-HCH and Lindane Contaminated Sites at OHIS	GEF-5	UNIDO	North Macedonia	C&W	FSP	3.1	12.5
4386	Environmentally Sound Management and Final Disposal of Polychlorinated Biphenyls (PCBs)	GEF-5	UNIDO	Ukraine	C&W	FSP	5.3	21.0
4387	Phase-out of CFC Consumption in the Manufacture of Aerosol Metered-dose Inhalers (MDIs) in the Russian Federation	GEF-5	UNIDO	Russian Federation	C&W	FSP	2.6	5.6
4392	Protect Human Health and the Environment from Unintentional Releases of POPs Originating from Incineration and Open Burning of Health Care- and Electronic-waste	GEF-5	UNDP	Egypt, Arab Rep.	C&W	FSP	4.1	17.6
4410	Development of the Guidelines for updating of National Implementation Plans (NIPs) under the Stockholm Convention taking into account the new POPs added to the Convention	GEF-5	UNIDO	Global	C&W	MSP	0.7	1.0
4412	Establishing the tools and methods to include the nine new POPs into the Global Monitoring Plan	GEF-5	UNEP	Global	C&W	MSP	0.7	1.5
4417	Development of National Capacity for the Environmentally Sound Management and Disposal of PCBs	GEF-5	UNDP	Colombia	C&W	FSP	3.4	16.2
4441	Dioxins Reductions from the Pulp and Paper Industry in China	GEF-5	WB	China	C&W	FSP	15.0	66.0
4442	NIP Update, Integration of POPs into National Planning and Promoting Sound Healthcare Waste Management in Kazakhstan	GEF-5	UNDP	Kazakhstan	C&W	FSP	3.4	35.0
4446	Introduction of an Environmentally Sound Management and Disposal System for PCBs Wastes and PCB Contaminated Equipment in Indonesia	GEF-5	UNIDO	Indonesia	C&W	FSP	6.0	24.4
4477	Comprehensive Reduction and Elimination of Persistent Organic Pollutants in Pakistan	GEF-5	UNDP	Pakistan	C&W	FSP	5.2	34.2
4485	Integrated PCB Management in Costa Rica	GEF-5	UNDP	Costa Rica	C&W	FSP	1.9	8.7
4534	Enabling activities to facilitate early action on the implementation of the Stockholm Convention on POPs	GEF-5	UNIDO	Bosnia-Herzegovina	C&W	EA	0.3	0.1
4569	Improve the Health and Environment of Artisanal and Small Scale Gold Mining (ASGM) Communities by Reducing Mercury Emissions and Promoting Sound Chemical Management	GEF-5	UNIDO	Regional	C&W	MSP	1.0	2.5
4596	Kenya NIP Update: Reviewing and Updating the National Implementation Plan under the Stockholm Convention	GEF-5	GEFSEC	Kenya	C&W	EA	0.2	0.0

GEF Interventions in the Chemicals and Waste Focal Area

GEF ID	Project title	GEF period	GEF Agency	Country	Focal area	Modality	Funding (mil. \$)	
							GEF grant	Cofinancing
4601	POPs Legacy Elimination and POPs Release Reduction Project	GEF-5	UNDP	Türkiye	C&W	FSP	10.8	84.7
4602	Initiation of the HCFCs Phase out in the Republic of Azerbaijan	GEF-5	UNIDO	Azerbaijan	C&W	FSP	2.6	6.6
4611	Reducing UPOPs and Mercury Releases from the Health Sector in Africa	GEF-5	UNDP	Regional	C&W	FSP	6.5	28.9
4612	Development and Promotion of Non-POPs alternatives to DDT	GEF-5	UNIDO	India	C&W	FSP	10.0	43.1
4617	Municipal Solid Waste Management	GEF-5	WB	China	C&W	FSP	12.0	50.9
4641	Disposal of POPs and Obsolete Pesticides and Strengthening Sound Pesticide Management	GEF-5	FAO	Cameroon	C&W	FSP	1.7	9.3
4668	Demonstration of Effectiveness of Diversified, Environmentally Sound and Sustainable Interventions, and Strengthening National Capacity for Innovative Implementation of Integrated Vector Management (IVM) for Disease Prevention and Control in the WHO AFRO R	GEF-5	UNEP	Regional	C&W	FSP	9.6	243.1
4737	Elimination of Obsolete Pesticide Stockpiles and Addressing POPs Contaminated Sites within a Sound Chemicals Management Framework	GEF-5	UNDP	Armenia	C&W	FSP	4.7	19.3
4738	Disposal of Obsolete Pesticides including POPs and Implementation of Pesticides Management Programme	GEF-5	FAO	Morocco	C&W	FSP	3.5	24.2
4740	Disposal of Obsolete Pesticides including POPs and Strengthening Pesticide Management in the Permanent Interstate Committee for Drought Control in the Sahel (CILSS) Member States	GEF-5	FAO	Regional	C&W	FSP	7.5	25.3
4741	Integrated and Environmentally Sound PCBs Management in Ecuador	GEF-5	UNDP	Ecuador	C&W	FSP	2.0	9.4
4756	Disposal of POPs and Obsolete Pesticides and Strengthening Life-cycle Management of Pesticides	GEF-5	FAO	Benin	C&W	FSP	1.8	10.6
4766	Implementation of Eco-industrial Park Initiative for Sustainable Industrial Zones in Vietnam	GEF-5	UNIDO	Viet Nam	MF	FSP	3.5	49.6
4782	PCB Management and Disposal at the Energy Sector	GEF-5	UNIDO	Lao PDR	C&W	FSP	1.4	5.6
4783	Enabling Activities to Review and Update the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs)	GEF-5	UNIDO	North Macedonia	C&W	EA	0.2	0.4
4799	Implementing Integrated Measures for Minimizing Mercury Releases from Artisanal Gold Mining	GEF-5	UNIDO	Regional	MF	MSP	1.0	2.7
4816	Reduction of Mercury Emissions and Promotion of Sound Chemical Management in Zinc Smelting Operations	GEF-5	UNIDO	China	C&W	MSP	1.0	4.0
4838	Updating Vietnam National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants	GEF-5	UNDP	Viet Nam	C&W	EA	0.2	0.2
4854	POPs and Chemical Pollution Solutions through Area-based-Ecoeffective-Management	GEF-5	UNIDO	China	C&W	FSP	6.0	24.0
4858	Environmentally-sound Development of the Power Sector with the Final Disposal of PCBs	GEF-5	UNIDO	Bangladesh	C&W	FSP	3.0	27.1
4862	Reduction of POPs and PTS Release by Environmentally Sound Management throughout the Life Cycle of Electrical and Electronic Equipment and Associated Wastes in China	GEF-5	UNDP	China	C&W	FSP	11.7	47.0

GEF ID	Project title	GEF period	GEF Agency	Country	Focal area	Modality	Funding (mil. \$)	
							GEF grant	Cofinancing
4873	Promotion of Waste-to-Energy Applications in Agro-Industries	GEF-5	UNIDO	Tanzania	CC	FSP	5.3	26.8
4877	Environmentally-Sound Management and Final Disposal of PCBs	GEF-5	UNIDO	Serbia	C&W	FSP	2.1	9.1
4881	Continuing Regional Support for the POPs Global Monitoring Plan under the Stockholm Convention in the Latin American and Caribbean Region	GEF-5	UNEP	Regional	C&W	FSP	3.6	13.4
4886	Continuing Regional Support for the POPs Global Monitoring Plan under the Stockholm Convention in the Africa Region	GEF-5	UNEP	Regional	C&W	FSP	4.2	10.2
4888	Environmentally Sound Management of Municipal and Hazardous Solid Waste to Reduce Emission of Unintentional POPs	GEF-5	UNIDO	Senegal	C&W	FSP	2.0	17.0
4894	Implementation of the POPs Monitoring Plan in the Asian Region	GEF-5	UNEP	Regional	C&W	FSP	3.9	13.2
4903	Development of a National Implementation Plan for Namibia to Facilitate its Implementation of the Stockholm Convention on Persistent Organic Pollutants (POPs)	GEF-5	UNEP	Namibia	C&W	EA	0.3	0.0
4915	Environmentally Sound Management and Final Disposal of PCBs at the Russian Railroad Network and Other PCB Owners	GEF-5	UNIDO	Russian Federation	C&W	FSP	7.4	34.2
4917	Enabling Activities to Review and Update the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs)	GEF-5	UNIDO	Philippines	C&W	EA	0.2	0.2
4919	Enabling Activities to Review and Update the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs)	GEF-5	UNIDO	Türkiye	C&W	EA	0.2	0.4
4961	Enabling Activities to Review and Update the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs)	GEF-5	UNIDO	Armenia	C&W	EA	0.1	0.4
4962	Pilot project on the development of a mercury inventory in China	GEF-5	UNEP	China	C&W	MSP	1.0	3.1
4985	Reducing global and local environmental risks from primary mercury mining in Khaidarkan the Kyrgyz Republic	GEF-5	UNEP	Kyrgyz Republic	C&W	MSP	0.9	3.0
4998	Environmental Sound Life-Cycle Management of Mercury Containing Products and their Wastes	GEF-5	UNDP	Uruguay	C&W	MSP	1.2	2.9
5000	Lifecycle Management of Pesticides and Disposal of POPs Pesticides in Central Asian Countries and Turkey	GEF-5	FAO	Regional	C&W	FSP	8.1	38.3
5001	Enabling Activities to Review and Update the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs)	GEF-5	UNIDO	Serbia	C&W	EA	0.2	0.3
5024	Enabling Activities to Review and Update the National implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs)	GEF-5	UNIDO	Eswatini	C&W	EA	0.2	0.2
5025	Enabling Activities to Review and Update the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs)	GEF-5	UNIDO	Mongolia	C&W	EA	0.2	0.4
5030	Enabling Activities to Review and Update the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs)	GEF-5	UNIDO	Sudan	C&W	EA	0.2	0.2

GEF ID	Project title	GEF period	GEF Agency	Country	Focal area	Modality	Funding (mil. \$)	
							GEF grant	Cofinancing
5032	Enabling Activities to Review and Update the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs)	GEF-5	UNIDO	Algeria	C&W	EA	0.2	0.2
5033	Enabling Activities to Review and Update the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs)	GEF-5	UNIDO	Indonesia	C&W	EA	0.2	0.2
5035	Enabling activities to review and update the national implementation plan for the Stockholm Convention on Persistent Organic Pollutants (POPs)	GEF-5	UNIDO	Togo	C&W	EA	0.2	0.2
5038	Implementation of BAT and BEP for Reduction of UP-POPs Releases from Open Burning Sources in Armenia	GEF-5	UNIDO	Armenia	C&W	MSP	0.9	3.4
5040	Investment Promotion on Environmentally sound Management of Electrical and Electronic Waste: Up-Scale and Promotion of Activities and Initiatives on Environmentally Sound Management of Electrical and Electronic Waste	GEF-5	UNIDO	Ethiopia	C&W	MSP	1.0	2.0
5052	Reducing Releases of PBDEs and UPOPs Originating from Unsound Waste Management and Recycling Practices and the Manufacturing of Plastics in Indonesia	GEF-5	UNDP	Indonesia	C&W	FSP	4.0	18.7
5061	Enabling Activities to Review and Update the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs)	GEF-5	UNIDO	Burkina Faso	C&W	EA	0.2	0.2
5067	Vietnam POPs and Sound Harmful Chemicals Management Project	GEF-5	UNDP	Viet Nam	C&W	FSP	2.6	11.1
5068	Protect Human Health and the Environment from Unintentional Releases of POPs and Mercury from the Unsound Disposal of Healthcare Waste in Kyrgyzstan	GEF-5	UNDP	Kyrgyz Republic	C&W	MSP	1.4	7.0
11071	Supporting the shift to a low-emission, circular construction in Chile	GEF-8	UNEP	Chile	CC	FSP	3.0	9.1
5082	Demonstration of BAT and BEP in Open Burning Activities in Response to the Stockholm Convention on POPs	GEF-5	UNIDO	Regional	C&W	FSP	7.6	32.8
5087	Organic Waste Streams for Industrial Renewable Energy Applications in India	GEF-5	UNIDO	India	CC	FSP	3.3	18.2
5092	Enabling Activities to Review and Update the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs)	GEF-5	UNIDO	Jordan	C&W	EA	0.2	0.2
5093	Enabling Activities to Review and Update the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs)	GEF-5	UNIDO	Tanzania	C&W	EA	0.2	0.2
5094	Belize C&W Management Programme	GEF-5	UNDP	Belize	C&W	MSP	1.0	6.4
5095	Enabling Activities to Review and Update the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs)	GEF-5	UNIDO	Lao PDR	C&W	EA	0.2	0.3
5107	Enabling Activities to Review and Update the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs)	GEF-5	UNIDO	Ethiopia	C&W	EA	0.2	0.2

GEF ID	Project title	GEF period	GEF Agency	Country	Focal area	Modality	Funding (mil. \$)	
							GEF grant	Cofinancing
5108	Enabling Activities to Review and Update the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs)	GEF-5	UNIDO	Liberia	C&W	EA	0.2	0.2
5109	Pesticide Risk Reduction in Malawi	GEF-5	FAO	Malawi	C&W	FSP	2.6	11.9
5116	Enabling Activities to Review and Update the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs)	GEF-5	UNIDO	Costa Rica	C&W	EA	0.2	0.3
5117	Enabling Activities to Review and Update the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs)	GEF-5	UNIDO	Congo, Dem. Rep.	C&W	EA	0.2	0.0
5127	Enabling Activities to Review and Update the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs)	GEF-5	UNIDO	Mexico	C&W	EA	0.2	0.2
5128	Enabling Activities to Review and Update the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs)	GEF-5	UNIDO	Seychelles	C&W	EA	0.1	0.1
5144	Strengthening Capacities for the Sound Management of Pesticides Including POPs	GEF-5	FAO	Uruguay	C&W	MSP	1.9	7.3
5150	Delivering the Transition to Energy Efficient Lighting	GEF-5	UNEP	Chile	MF	FSP	2.5	9.4
5153	Enabling Activities to Review and Update the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs)	GEF-5	UNIDO	Guinea	C&W	EA	0.2	0.2
5154	Sustainable Conversion of Waste to Clean Energy for Greenhouse Gas (GHG) Emissions Reduction	GEF-5	UNIDO	Kenya	CC	MSP	2.0	9.8
5158	Enabling Activities to Review and Update the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs)	GEF-5	UNIDO	Zambia	C&W	EA	0.2	0.2
5161	Enabling Activities to Review and Update the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs) in Mozambique	GEF-5	UNIDO	Mozambique	C&W	EA	0.2	0.2
5162	Enabling Activities to Review and Update the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs)	GEF-5	UNIDO	Honduras	C&W	EA	0.2	0.3
5163	Enabling Activities to Review and Update the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs)	GEF-5	UNIDO	Central African Republic	C&W	EA	0.2	0.2
5167	Enabling Activities to Review and Update the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs)	GEF-5	UNIDO	Nigeria	C&W	EA	0.2	0.2
5169	Enabling Activities to Review and Update the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs) in São Tomé	GEF-5	UNIDO	São Tomé and Príncipe	C&W	EA	0.2	0.2
5179	Sound Management of POPs Containing Waste	GEF-5	UNDP	Mexico	C&W	FSP	5.7	23.1
5180	Enabling Activities to Review and Update the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs)	GEF-5	UNIDO	Ecuador	C&W	EA	0.2	0.2

GEF ID	Project title	GEF period	GEF Agency	Country	Focal area	Modality	Funding (mil. \$)	
							GEF grant	Cofinancing
5181	Enabling Activities to Review and Update the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs)	GEF-5	UNIDO	Lesotho	C&W	EA	0.2	0.2
5182	Enabling Activities to Facilitate early Action on the Implementation of the Stockholm Convention on Persistent Organic Pollutants (POPs) in Myanmar	GEF-5	UNIDO	Myanmar	C&W	EA	0.5	0.5
5216	Improve the Health and Environment of Artisanal Gold Mining Communities in the Philippines by Reducing Mercury Emissions	GEF-5	UNIDO	Philippines	C&W	MSP	0.6	1.1
5219	Enabling Activities to Review and Update the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs)	GEF-5	UNIDO	Bolivia	C&W	EA	0.2	0.3
5222	Pilot Project on the Development of Mercury Inventory in the Russian Federation (RF)	GEF-5	UNEP	Russian Federation	C&W	MSP	1.0	3.4
5223	Enabling Activities to Review and Update the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs)	GEF-5	UNIDO	Tajikistan	C&W	EA	0.2	0.2
5224	Enabling Activities to Review and Update the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs)	GEF-5	UNIDO	Nepal	C&W	EA	0.2	0.2
5234	Enabling Activities to Facilitate Early Action on the Implementation of the Stockholm Convention on POPs	GEF-5	UNIDO	Maldives	C&W	EA	0.4	0.3
5235	Enabling Activities to Review and Update the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs)	GEF-5	UNIDO	Sri Lanka	C&W	EA	0.2	0.2
5265	Review and Update of the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs) in the Kingdom of Cambodia	GEF-5	UNEP	Cambodia	C&W	EA	0.2	0.3
5299	Delivering the Transition to Energy Efficient Lighting	GEF-5	UNEP	Bolivia	MF	FSP	3.1	13.5
5300	Regional Demonstration Project for Coordinated Management of ODS and POPs Disposal in Ukraine, Belarus, Kazakhstan and Armenia	GEF-5	UNIDO	Regional	MF	FSP	18.0	74.5
5303	Enabling Activities to Review and Update the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs)	GEF-5	UNIDO	Rwanda	C&W	EA	0.2	0.2
5307	Global Project on the Updating of National Implementation Plans for POPs	GEF-5	UNEP	Global	C&W	FSP	5.0	5.5
5309	Enabling Activities to Review and Update the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs)	GEF-5	UNIDO	Tunisia	C&W	EA	0.2	0.2
5314	Environmentally Sound Management and Disposal of PCBs Wastes and PCB Contaminated Equipment in Sri Lanka	GEF-5	UNIDO	Sri Lanka	C&W	FSP	4.7	19.0
5322	Promotion of BAT and BEP to Reduce uPOPs Releases from Waste Open Burning in the Participating African Countries of COMESA-SADC Subregions	GEF-5	UNIDO	Regional	C&W	FSP	6.6	28.4
5323	Reduce Exposure of Mercury to Human Health and the Environment by Promoting Sound Chemical Management in Mongolia	GEF-5	UNIDO	Mongolia	C&W	MSP	0.6	1.6

GEF ID	Project title	GEF period	GEF Agency	Country	Focal area	Modality	Funding (mil. \$)	
							GEF grant	Cofinancing
5325	Environmentally Sound Management and Final Disposal of PCBs	GEF-5	UNIDO	Congo, Rep.	C&W	MSP	1.0	5.0
5362	Obsolete Pesticides Management Project	GEF-5	WB	Côte d'Ivoire	C&W	FSP	7.0	25.0
5367	PCB Reduction In Cameroon Through The Use Of Local Expertise And The Development Of National Capacities	GEF-5	UNEP	Cameroon	C&W	FSP	3.0	13.3
5407	Disposal of Obsolete Pesticides including POPs, Promotion of Alternatives and Strengthening Pesticides Management in the Caribbean	GEF-5	FAO	Regional	C&W	FSP	4.4	26.4
5409	Development of a Plan for Global Monitoring of Human Exposure to and Environmental Concentrations of Mercury	GEF-5	UNEP	Global	C&W	MSP	0.9	3.0
5427	Enabling Activities to Review and Update the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs)	GEF-5	UNIDO	Peru	C&W	EA	0.2	0.2
5460	Enabling Activities to Review and Update the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs)	GEF-5	UNIDO	Congo, Rep.	C&W	EA	0.2	0.2
5464	Reducing Greenhouse Gas and ODS Emissions Through Technology Transfer in Industrial Refrigeration	GEF-5	UNIDO	Viet Nam	CC	MSP	0.3	1.9
5466	Reducing Greenhouse Gases and ODS Emissions through Technology Transfer in the Industrial Refrigeration and Air Conditioning Sector	GEF-5	UNIDO	Gambia, The	CC	MSP	0.5	2.5
5469	Enabling Activities to Review and Update the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs)	GEF-5	UNIDO	Senegal	C&W	EA	0.2	0.2
5484	Environmental Sound Management of Mercury and Mercury Containing Products and their Wastes in Artisanal Small-scale Gold Mining and Healthcare	GEF-5	UNDP	Honduras	C&W	MSP	1.3	6.2
5492	Contaminated Site Management Project	GEF-5	WB	China	C&W	FSP	15.0	60.0
5493	Enabling Activities to Review and Update the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs)	GEF-5	UNIDO	Niger	C&W	EA	0.2	0.2
5494	Development of Mercury Risk Management Approaches in Latin America	GEF-5	UNEP	Regional	C&W	MSP	0.9	2.9
5496	Preparatory Project to Facilitate the Implementation of the Legally Binding Instrument on Mercury (Minamata Convention) in Argentina to Protect Health and the Environment	GEF-5	UNIDO	Argentina	C&W	MSP	0.4	0.5
5498	Enabling Activities to Review and Update the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs)	GEF-5	UNIDO	Guinea-Bissau	C&W	EA	0.2	0.2
5499	Enabling Activities to Review and Update the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs)	GEF-5	UNIDO	Nicaragua	C&W	EA	0.2	0.2
5500	Enabling Activities to Review and Update the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs)	GEF-5	UNIDO	Côte d'Ivoire	C&W	EA	0.2	0.2

GEF ID	Project title	GEF period	GEF Agency	Country	Focal area	Modality	Funding (mil. \$)	
							GEF grant	Cofinancing
5525	Global Project on the Updating of National Implementation Plans for POPs	GEF-5	UNEP	Global	C&W	MSP	1.3	1.0
5532	Disposal of PCB Oils Contained in Transformers and Disposal of Capacitors Containing PCB in Southern Africa	GEF-5	UNEP	Regional	C&W	FSP	7.7	33.7
5554	Strengthening of National Initiatives and Enhancement of Regional Cooperation for the Environmentally Sound Management of POPs in Waste of Electronic or Electrical Equipment (WEEE) in Latin-American Countries	GEF-5	UNIDO	Regional	C&W	FSP	9.5	71.4
5558	Development and Implementation of a Sustainable Management Mechanism for POPs in the Caribbean	GEF-5	UNIDO	Regional	C&W	FSP	8.8	21.1
5583	REDUCING ENVIRONMENTAL HEALTH IMPACTS OF HARMFUL POLLUTANTS IN AFRICA REGION	GEF-5	WB	Regional	C&W	MSP	2.0	2.0
5600	Review and update of the national implementation plan for the Stockholm Convention on Persistent Organic Pollutants (POPs)	GEF-5	UNEP	Morocco	C&W	EA	0.2	0.0
5616	Enabling Activities to Review and Update the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs)	GEF-5	UNIDO	Eritrea	C&W	EA	0.2	0.0
5624	China's Compliance with the Stockholm Convention	GEF-5	UNIDO	China	C&W	MSP	2.0	4.0
5625	Enabling Activities to Review and Update the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs)	GEF-5	UNIDO	Uganda	C&W	EA	0.2	0.0
5629	Review and Update of the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs) in Fiji	GEF-5	UNEP	Fiji	C&W	EA	0.1	0.1
5630	Review and Update of the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs) in Zimbabwe	GEF-5	UNEP	Zimbabwe	C&W	EA	0.1	0.0
5633	Lead Paint Elimination Project in Africa	GEF-5	UNEP	Regional	C&W	MSP	1.0	3.2
5644	Enabling Activities to Review and Update the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs) in the Republic of Mali	GEF-5	UNIDO	Mali	C&W	EA	0.2	0.2
5646	Environmentally Sound Management of Polychlorinated Biphenyl (PCB) - Containing Equipment and Wastes and Upgrade of Technical Expertise in Bolivia	GEF-5	UNIDO	Bolivia	C&W	MSP	2.0	9.7
5648	Global Project on the Implementation of PRTs as a Tool for POPs Reporting, Dissemination and Awareness Raising for Belarus, Cambodia, Ecuador, Kazakhstan, Moldova and Peru	GEF-5	UNEP	Global	C&W	MSP	2.0	8.2
5661	Enabling Activities to Review and Update the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs)	GEF-5	UNIDO	Guatemala	C&W	EA	0.2	0.2
5662	Defining and Demonstrating Best Practices for Exchange of Information on Chemicals in Textile Products	GEF-5	UNEP	China	C&W	MSP	1.0	4.4
5689	Sound Chemicals Management Mainstreaming and UPOPs Reduction in Kenya	GEF-5	UNDP	Kenya	C&W	FSP	4.5	21.0

GEF ID	Project title	GEF period	GEF Agency	Country	Focal area	Modality	Funding (mil. \$)	
							GEF grant	Cofinancing
5693	Enabling Activities to Review and Update the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs)	GEF-5	UNIDO	Cabo Verde	C&W	EA	0.2	0.2
5701	Reducing Environmental and Health Risks to Vulnerable Communities from Lead Contamination from Lead Paint and Recycling of Used Lead Acid Batteries	GEF-5	UNDP	Regional	C&W	MSP	0.8	2.5
5704	Promoting Organic Waste-to-Energy and other Low-carbon Technologies in Small and Medium-scale Enterprises (SMMEs): Accelerating Biogas Market Development	GEF-5	UNIDO	South Africa	CC	FSP	4.2	41.9
5734	Sustainable Business Models for Biogas Production from Organic Municipal Solid Waste	GEF-5	UNDP	Argentina	CC	FSP	2.8	12.7
5762	Mercury Initial Actions for Kenya	GEF-5	GEFSEC	Kenya	C&W	EA	0.2	0.0
5816	Environmentally Sound Management and Disposal of Polychlorinated Biphenyl (PCB) - Containing Equipment and Disposal of DDT Wastes, and Upgrade of Technical Expertise	GEF-5	UNIDO	Guatemala	C&W	MSP	2.0	13.8
5858	Strengthen National Decision Making Towards Ratification of the Minamata Convention and Build Capacity Towards Implementation of Future Provisions	GEF-5	UNDP	Mauritius	C&W	EA	0.2	0.1
5859	Strengthen national decision making towards ratification of the Minamata Convention and build capacity towards implementation of future provisions	GEF-5	UNDP	Georgia	C&W	EA	0.2	0.0
5860	Development of Minamata Convention on Mercury Initial Assessment in Africa	GEF-5	UNEP	Regional	C&W	EA	0.9	1.1
5861	Development of Minamata Convention on Mercury Initial Assessment in Brazil	GEF-5	UNEP	Brazil	C&W	EA	0.8	1.7
5862	Minamata Convention Initial Assessment in the People's Republic of China	GEF-5	UNIDO	China	C&W	EA	1.0	1.0
5863	Development of Minamata Initial Assessment in Three Asian Countries	GEF-5	UNEP	Regional	C&W	EA	0.7	1.7
5864	Development of Minamata Initial Assessment in Moldova	GEF-5	UNEP	Moldova	C&W	EA	0.2	0.1
5865	Development of Minamata Initial Assessment in Mexico	GEF-5	UNEP	Mexico	C&W	EA	0.5	0.0
5866	Minamata Convention Initial Assessment (MIA) in the Republic of Armenia	GEF-5	UNIDO	Armenia	C&W	EA	0.2	0.0
5869	Minamata Convention Initial Assessment in the Comoros	GEF-5	UNIDO	Comoros	C&W	EA	0.2	0.1
5870	Minamata Convention Initial Assessment in Vietnam	GEF-5	UNIDO	Viet Nam	C&W	EA	0.5	0.0
5871	Minamata Convention Initial Assessment in the Federal Republic of Nigeria	GEF-5	UNIDO	Nigeria	C&W	EA	1.0	0.2
5873	Minamata Convention Initial Assessment (MIA) in the Republic of Yemen	GEF-5	UNIDO	Yemen	C&W	EA	0.2	0.1
5875	Development of Minamata Initial Assessment in Madagascar	GEF-5	UNEP	Madagascar	C&W	EA	0.2	0.2
5879	Development of Minamata Initial Assessment in LAC	GEF-5	UNEP	Regional	C&W	EA	0.7	0.9
5881	Minamata Initial Assessment for Costa Rica	GEF-5	UNDP	Costa Rica	C&W	EA	0.2	0.0
6921	Demonstration of Mercury Reduction and Minimization in the Production of Vinyl Chloride Monomer in China	GEF-6	UNIDO	China	C&W	FSP	16.2	100.4

GEF Interventions in the Chemicals and Waste Focal Area

GEF ID	Project title	GEF period	GEF Agency	Country	Focal area	Modality	Funding (mil. \$)	
							GEF grant	Cofinancing
6928	Reducing UPOPs and Mercury Releases from Healthcare Waste Management, e-Waste Treatment, Scrap Processing and Biomass Burning	GEF-6	UNDP	Colombia	C&W	FSP	5.8	32.9
6939	Minamata Initial Assessment for Guyana	GEF-6	UNDP	Guyana	C&W	EA	0.2	0.0
6944	Development of Minamata Convention on Mercury Initial Assessment in Africa	GEF-6	UNEP	Regional	C&W	EA	0.5	0.5
6959	Strengthen national decision making towards ratification of the Minamata Convention and build capacity towards implementation of future provisions	GEF-6	UNDP	Global	C&W	EA	1.0	0.0
6961	Strengthen National Decision Making Towards Ratification of the Minamata Convention and Build Capacity Towards Implementation of Future Provisions	GEF-6	UNDP	Seychelles	C&W	EA	0.2	0.0
6966	UPOPs Reduction through BAT/BEP and PPP-based Industry Chain Management in Secondary Copper Production Sector in China	GEF-6	UNDP	China	C&W	FSP	12.6	52.5
6975	Review and Update of the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs)	GEF-6	UNDP	Colombia	C&W	EA	0.3	0.0
6978	Continuing Regional Support for the POPs Global Monitoring Plan under the Stockholm Convention in the Pacific Region	GEF-6	UNEP	Regional	C&W	MSP	2.0	6.4
6985	National Action Plan on Mercury in the Mozambican Artisanal and Small-Scale Gold Mining sector	GEF-6	UNIDO	Mozambique	C&W	EA	0.5	0.1
8000	Improve Mercury Management in Tunisia	GEF-6	UNIDO	Tunisia	C&W	MSP	0.6	2.4
8007	Minamata Convention Initial Assessment (MIA) in the Republic of Colombia	GEF-6	UNIDO	Colombia	C&W	EA	0.2	0.0
8017	GEF-6 POPs Legacy and Sustainable Chemicals Management	GEF-6	UNDP	Belarus	C&W	FSP	8.4	50.8
8026	Minamata Initial Assessment for Panama	GEF-6	UNDP	Panama	C&W	EA	0.2	0.0
8027	Review and Update of the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs)	GEF-6	UNDP	Panama	C&W	EA	0.2	0.0
9045	Comprehensive Environmentally Sound Management of PCBs	GEF-6	UNDP	Montenegro	C&W	FSP	3.5	19.8
9046	Reduction and Phase-out of PFOS in Priority Sectors	GEF-6	WB	China	C&W	FSP	24.3	153.0
9048	Ethiopian Urban NAMA: Creating Opportunities for Municipalities to Produce and Operationalise Solid Waste Transformation (COMPOST)	GEF-6	UNDP	Ethiopia	CC	FSP	6.7	47.1
9053	Reducing Argentina's Greenhouse Gas Emissions from the Energy Sector through the Utilization of Organic Waste for Energy Generation in Agriculture and agroindustries	GEF-6	UNIDO	Argentina	CC	FSP	6.0	38.5
9076	Pesticide Risk Reduction in Bangladesh	GEF-6	FAO	Bangladesh	C&W	FSP	8.3	33.7
9078	Implementation of PCB Management Programs for Electric Cooperatives and Safe e-wastes Management	GEF-6	UNIDO	Philippines	C&W	FSP	6.2	35.9
9079	Environmentally Sound Management of Products and Wastes Containing POPs and Risks Associated with Their Final Disposal	GEF-6	UNDP	Honduras	C&W	FSP	3.5	26.6
9080	Integrated Health and Environment Observatories and Legal and Institutional Strengthening for the Sound Management of Chemicals in Africa (African ChemObs)	GEF-6	UNEP	Regional	C&W	FSP	10.5	20.3

GEF ID	Project title	GEF period	GEF Agency	Country	Focal area	Modality	Funding (mil. \$)	
							GEF grant	Cofinancing
9098	Minamata Convention Initial Assessment in Francophone Africa II	GEF-6	UNIDO	Regional	C&W	EA	0.8	0.1
9100	Minamata Convention Initial Assessment in Chad	GEF-6	UNIDO	Chad	C&W	EA	0.2	0.1
9101	Minamata Convention Initial Assessment in Francophone Africa I	GEF-6	UNIDO	Regional	C&W	EA	0.6	0.2
9122	Minamata Initial Assessment for Albania	GEF-6	UNDP	Albania	C&W	EA	0.2	0.0
9123	Cities-IAP: Sustainable Cities Initiative	GEF-6	WB	Senegal	MF	FSP	8.7	51.8
9127	Cities-IAP: Asuncion Green City of the Americas - Pathways to Sustainability	GEF-6	UNDP	Paraguay	MF	FSP	7.5	240.3
9144	Minamata Convention Initial Assessment in Malaysia	GEF-6	UNDP	Malaysia	C&W	EA	0.3	0.3
9152	Minamata Initial Assessment in Nepal	GEF-6	UNIDO	Nepal	C&W	EA	0.2	0.1
9164	National Action Plan on Mercury in the Artisanal and Small-Scale Gold Mining sector in Gabon	GEF-6	UNIDO	Gabon	C&W	EA	0.5	0.2
9168	Enabling Activities to Review and Update the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs)	GEF-6	UNIDO	Chad	C&W	EA	0.2	0.0
9170	Improve Mercury Management in India	GEF-6	UNDP	India	C&W	EA	1.0	0.0
9172	Development of Minamata Initial Assessment in Cameroon	GEF-6	UNEP	Cameroon	C&W	EA	0.2	0.0
9173	Development of Minamata Convention Mercury Initial Assessment in Africa	GEF-6	UNEP	Regional	C&W	EA	1.0	0.1
9174	Development of a Minamata Initial Assessment in Djibouti	GEF-6	UNEP	Djibouti	C&W	EA	0.2	0.0
9185	Development of Minamata Initial Assessment	GEF-6	UNEP	Regional	C&W	EA	0.8	0.1
9187	Development of Minamata Convention Mercury Initial Assessment in Pacific	GEF-6	UNEP	Regional	C&W	EA	0.5	0.0
9188	Development of Minamata Initial Assessment in Papua New Guinea	GEF-6	UNEP	Papua New Guinea	C&W	EA	0.3	0.0
9189	Reduction and Elimination of POPs and Other Chemical Releases through Implementation of Environmentally Sound Management of E-Waste, Healthcare Waste and Priority U-POPs Release Sources Associated with General Waste Management Activities	GEF-6	UNDP	Jordan	C&W	FSP	5.1	64.9
9196	Development of a Minamata Initial Assessment	GEF-6	UNEP	North Macedonia	C&W	EA	0.2	0.0
9198	Minamata Initial Assessment for Montenegro	GEF-6	UNDP	Montenegro	C&W	EA	0.2	0.0
9200	Strengthen Bosnia and Herzegovina Decision-making Towards Becoming a Party to the Minamata Convention and Build Capacity Towards Implementation of Future Provisions	GEF-6	UNDP	Bosnia-Herzegovina	C&W	EA	0.2	0.0
9203	National Program for the Environmental Sound Management and Live Cycle Management of Chemical Substances	GEF-6	UNDP	Ecuador	C&W	FSP	8.5	40.6
9206	Sustainable Industrial Zone Development	GEF-6	UNIDO	Peru	MF	FSP	4.1	44.5
9210	NAMA on Integrated Waste Management and Biogas in Uganda	GEF-6	UNDP	Uganda	CC	FSP	2.2	15.1
9214	Environmentally Sound Management and Destruction of PCBs in Mexico: Second Phase	GEF-6	UNDP	Mexico	C&W	FSP	4.8	20.8

GEF ID	Project title	GEF period	GEF Agency	Country	Focal area	Modality	Funding (mil. \$)	
							GEF grant	Cofinancing
9219	Applications of Industry-urban Symbiosis and Green Chemistry for Low Emission and Persistent Organic Pollutants (POPs)-Free Industrial Development in Thailand	GEF-6	UNIDO	Thailand	MF	FSP	9.0	120.1
9222	Greening the Scrap Metal Value Chain through Promotion of BAT/BEP to Reduce U-POPs Releases from Recycling Facilities	GEF-6	UNIDO	Thailand	C&W	FSP	4.5	33.7
9227	PCB-Free Electricity Distribution in Georgia	GEF-6	UNIDO	Georgia	C&W	FSP	3.9	56.1
9234	Integrated Sustainable Urban Development (SUDP) and Environmentally Sound Management of Municipal Solid Waste Project in Cameroon	GEF-6	AfDB	Cameroon	MF	FSP	8.0	115.0
9236	Environmentally Sound Management and Disposal of PCBs	GEF-6	UNDP	Nigeria	C&W	FSP	6.9	42.1
9240	Capacity Strengthening For Implementation Of Minamata Convention On Mercury	GEF-6	WB	China	C&W	FSP	8.0	8.0
9246	Integrated Environmental Management of the Rio Motagua Watershed	GEF-6	UNDP	Regional	MF	FSP	5.3	28.0
9263	Sound Management of Unintentional Persistent Organic Pollutants (POPs) and Polychlorinated Biphenyl Ether (PBDEs) to Reduce their Emission from the Industrial Waste Sector	GEF-6	UNIDO	Côte d'Ivoire	C&W	FSP	5.3	67.9
9276	Regional Project on the Development of National Action Plans for the Artisanal and Small Scale Gold Mining in Africa	GEF-6	UNEP	Regional	C&W	EA	4.0	0.1
9293	Scaling up a Multiple Benefits Approach to Enhance Resilience in Agro- and Forest Landscapes of Mali's Sahel Regions (Kayes, Koulikoro and Ségou)	GEF-6	AfDB	Mali	MF	FSP	8.6	59.5
11075	Global Programme to Support Countries to Upscale Integrated Electric Mobility Systems	GEF-8	UNEP	Global	MF	FSP	7.2	42.0
9302	Strengthen National Decision Making towards Ratification of the Minamata Convention and Build Capacity towards Implementation of Future Provisions	GEF-6	UNDP	Jordan	C&W	EA	0.2	0.0
9307	Enabling activities to review and update the national implementation plan for the Stockholm Convention on persistent organic pollutants (POPs)	GEF-6	UNIDO	Mauritania	C&W	EA	0.2	0.0
9308	Minamata Convention: Initial Assessment in Cabo Verde and São Tomé and Príncipe	GEF-6	UNIDO	Regional	C&W	EA	0.4	0.2
9311	Strengthen National Decision making towards Ratification of the Minamata Convention and Build Capacity towards Implementation of Future Provisions	GEF-6	UNDP	Azerbaijan	C&W	EA	0.2	0.0
9343	Strengthen the National Decision Making Mechanism to Ratify the Minamata Convention and Strengthen National Capacities for the Implementation of its Futures Provisions	GEF-6	UNDP	Morocco	C&W	EA	0.2	0.0
9344	Minamata Convention: Initial Assessment in Turkey	GEF-6	UNIDO	Türkiye	C&W	EA	0.5	0.0
9345	Minamata Convention: Initial assessment in the Republic of Sudan	GEF-6	UNIDO	Sudan	C&W	EA	0.2	0.1
9346	Minamata Convention: Initial Assessment in Sri Lanka	GEF-6	UNIDO	Sri Lanka	C&W	EA	0.2	0.0
9349	Minamata Initial Assessment for Suriname	GEF-6	UNDP	Suriname	C&W	EA	0.2	0.0
9350	Development of National Action Plans for Artisanal and Small Scale Gold Mining in Paraguay	GEF-6	UNEP	Paraguay	C&W	EA	0.5	0.0

GEF ID	Project title	GEF period	GEF Agency	Country	Focal area	Modality	Funding (mil. \$)	
							GEF grant	Cofinancing
9351	Development of Minamata Initial Assessment and National Action Plan for Artisanal and Small Scale Gold Mining in Honduras	GEF-6	UNEP	Honduras	C&W	EA	0.7	0.0
9353	Minamata Convention: Initial Assessment in Guatemala	GEF-6	UNIDO	Guatemala	C&W	EA	0.2	0.1
9357	Strengthening the Environmentally-sound Management and Final Disposal of PCBs	GEF-6	UNIDO	Paraguay	C&W	FSP	4.0	24.3
9358	National Action Plan on Mercury in the Nigerian Artisanal and Small-Scale Gold Mining sector	GEF-6	UNIDO	Nigeria	C&W	EA	0.5	0.4
9371	Impact Investment and Capacity Building in Support of Sustainable Waste Management to Reduce Emissions of Unintentional POPs (UPOPs) and Mercury in West Africa	GEF-6	BOAD	Regional	MF	FSP	15.9	130.8
9373	Guidance Development and Case Study Documentation of Green Chemistry and Technologies	GEF-6	UNIDO	Global	C&W	MSP	1.8	6.5
9377	Review and update of the national implementation plan for the Stockholm Convention on Persistent Organic Pollutants (POPs) in Cuba	GEF-6	UNDP	Cuba	C&W	EA	0.3	0.0
9379	Application of Green Chemistry in Vietnam to Support Green Growth and Reduction in the Use and Release of POPs/Harmful Chemicals	GEF-6	UNDP	Viet Nam	C&W	MSP	2.0	8.4
9381	Development of Minamata Convention Initial Assessment (MIA) for Ghana	GEF-6	UNDP	Ghana	C&W	EA	0.2	0.0
9399	Minamata Initial Assessment	GEF-6	UNDP	Serbia	C&W	EA	0.2	0.1
9421	Demonstration of Non-thermal Treatment of DDT Wastes in Central Asia	GEF-6	UNEP	Regional	C&W	FSP	15.1	29.1
9453	Development of Minamata Initial Assessment and National Action Plan for Artisanal and Small Scale Gold Mining in Democratic Republic of Congo (DRC)	GEF-6	UNEP	Congo, Dem. Rep.	C&W	EA	1.0	0.0
9454	Development of Minamata Initial Assessment and National Action Plan for Artisanal and Small Scale Gold Mining in Sierra Leone	GEF-6	UNEP	Sierra Leone	C&W	EA	0.7	0.0
9455	Development of Minamata Initial Assessment in the Caribbean (Trinidad and Tobago, Jamaica, St Kitts and Nevis, St Lucia)	GEF-6	UNEP	Regional	C&W	EA	0.6	0.0
9456	Development of National Action Plans for Artisanal and Small Scale Gold Mining in the United Republic of Tanzania	GEF-6	UNEP	Tanzania	C&W	EA	0.5	0.0
9457	Development of National Action Plan for Artisanal and Small Scale Gold Mining in Madagascar	GEF-6	UNEP	Madagascar	C&W	EA	0.5	0.0
9475	National Action Plan on Mercury in the Artisanal and Small-Scale Gold Mining Sector in Peru	GEF-6	UNIDO	Peru	C&W	EA	0.5	0.2
9478	National Action Plan on Mercury in the Artisanal and Small-scale Gold Mining Sector in Ghana	GEF-6	UNIDO	Ghana	C&W	EA	0.5	0.1
9487	Enabling Activities to Review and Update the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants	GEF-6	UNIDO	Thailand	C&W	EA	0.2	0.2
9489	Artisanal and Small-Scale Gold Mining (ASGM) National Action Plan (NAP) for Suriname	GEF-6	UNDP	Suriname	C&W	EA	0.5	0.0
9494	Development of Minamata Initial Assessment in South Africa	GEF-6	UNEP	South Africa	C&W	EA	1.0	0.0

GEF ID	Project title	GEF period	GEF Agency	Country	Focal area	Modality	Funding (mil. \$)	
							GEF grant	Cofinancing
9530	Review and Update of the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs) in Brazil	GEF-6	UNEP	Brazil	C&W	EA	0.3	0.0
9533	Development of National Action Plan for Artisanal and Small Scale Gold Mining Mali and Senegal	GEF-6	UNEP	Regional	C&W	EA	1.0	0.0
9535	Development of National Action Plan for Artisanal and Small Scale Gold Mining	GEF-6	UNEP	Mongolia	C&W	EA	0.5	0.0
9547	Development of National Action Plan for Artisanal and Small Scale Gold Mining in Guinea and Niger	GEF-6	UNEP	Regional	C&W	EA	1.0	0.0
9548	Development of a Minamata Initial Assessment in Maldives	GEF-6	UNEP	Maldives	C&W	EA	0.2	0.0
9562	Eliminating POPs through Sound Management of Chemicals	GEF-6	UNDP	Maldives	C&W	FSP	3.7	59.4
9565	Strengthening the Enabling Framework for Biodiversity Mainstreaming and Mercury Reduction in Small and Medium-scale Gold Mining Operations	GEF-6	UNDP	Guyana	MF	FSP	4.5	29.7
9570	Capacity Building for PCBs and U-POPs in The Gambia	GEF-6	UNDP	Gambia, The	C&W	MSP	2.0	8.0
11110	Fortifying Infrastructure for Responsible Extinguishments (FIRE)	GEF-8	UNEP	Regional	C&W	FSP	10.0	72.2
9576	Environmentally Sound Management and Disposal of PolyChlorinated Biphenyls [PCBs] in the Republic of South Africa	GEF-6	DBSA	South Africa	C&W	FSP	8.2	56.4
9601	CREW+: An Integrated Approach to Water and Wastewater Management Using Innovative Solutions and Promoting Financing Mechanisms in the Wider Caribbean Region	GEF-6	IDB	Regional	MF	FSP	14.9	150.0
9615	Enabling Activities to Review and Update the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs)	GEF-6	UNIDO	Gabon	C&W	EA	0.2	0.0
9616	Enabling Activities to Review and Update the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants	GEF-6	DBSA	South Africa	C&W	EA	0.3	0.1
9622	Development of Minamata Initial Assessment and Updating of National Action Plan for Artisanal and Small Scale Gold Mining	GEF-6	UNEP	Lao PDR	C&W	EA	0.7	0.0
9634	Review and Update of the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs) in Federated States of Micronesia (FSM)	GEF-6	UNEP	Micronesia, Fed. Sts.	C&W	EA	0.2	0.0
9635	Review and update of the national implementation plan for the Stockholm Convention on Persistent Organic Pollutants (POPs) in Comoros	GEF-6	UNEP	Comoros	C&W	EA	0.2	0.0
9641	Development of Minamata Initial Assessment and National Action Plan for Artisanal and Small Scale Gold Mining in Eritrea	GEF-6	UNEP	Eritrea	C&W	EA	0.7	0.0
9644	Development of Minamata Initial Assessment and Updating of National Action Plan for Artisanal and Small Scale Gold Mining	GEF-6	UNEP	Kyrgyz Republic	C&W	EA	0.7	0.0
9669	PCB Management in Ethiopia to Meet the 2025 Stockholm Convention Deadline - Phase 1	GEF-6	UNDP	Ethiopia	C&W	MSP	2.0	8.4
9680	Advanced Minamata Initial Assessment in Mongolia	GEF-6	UNIDO	Mongolia	C&W	EA	0.2	0.0
9684	Reducing Pollution from Harmful Chemicals and Wastes in Mediterranean Hot Spots and Measuring Progress to Impacts	GEF-6	UNEP	Regional	MF	FSP	14.3	53.1

GEF ID	Project title	GEF period	GEF Agency	Country	Focal area	Modality	Funding (mil. \$)	
							GEF grant	Cofinancing
9686	Mediterranean Sea Basin Environment and Climate Regional Support Project	GEF-6	UNEP	Regional	MF	FSP	2.5	6.6
9690	Develop the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs) and the Minamata Initial Assessment for the Minamata Convention on Mercury in Iraq	GEF-6	UNEP	Iraq	C&W	EA	0.8	0.0
9691	Financing Advanced Environmental Technologies in the Mediterranean Sea Region for Water Systems and Clean Coasts (EnviTeCC)	GEF-6	EBRD	Regional	MF	FSP	8.8	90.0
9695	GEF GOLD Mongolia-Philippines: Contribution Towards the Elimination of Mercury in the ASGM sector From Miners to Refiners	GEF-6	UNEP	Regional	C&W	FSP	11.7	48.2
9697	Global Knowledge Management and Exchange of Child Project Results Through Networking and Outreach Activities for the GEF GOLD Program	GEF-6	UNEP	Global	C&W	FSP	8.0	17.8
9701	Minamata Initial Assessment	GEF-6	UNDP	Kazakhstan	C&W	EA	0.4	0.0
9707	Integrated Sound Management of Mercury in Indonesia's Artisanal and Small-scale Gold Mining (ISMIA)	GEF-6	UNDP	Indonesia	C&W	FSP	6.7	28.6
9708	Integrated Sound Management of Mercury in Kenya's Artisanal and Small-scale Gold Mining (ASGM) or IMKA	GEF-6	UNDP	Kenya	C&W	FSP	4.2	17.8
9709	GEF GOLD Colombia: Integrated Sound Management of Mercury in Colombia's ASGM sector	GEF-6	UNDP	Colombia	C&W	FSP	6.0	23.4
9710	GEF GOLD Peru - Integrated Sound Management of Mercury in Peru's Artisanal and Small-scale Gold Mining (ASGM)	GEF-6	UNDP	Peru	C&W	FSP	4.0	35.2
9711	National Action Plan on Mercury in the Artisanal and Small-Scale Gold Mining Sector in Burkina Faso	GEF-6	UNIDO	Burkina Faso	C&W	EA	0.5	0.2
9712	Complete HCFC Phase-out in Tajikistan through Promotion of Zero ODS Low GWP Energy Efficient Technologies	GEF-6	UNDP	Tajikistan	C&W	MSP	1.6	5.8
9713	A GEF GOLD/ Supply Chain Approach to Eliminating Mercury in Guyana's ASGM Sector: El Dorado Gold Jewelry Made in Guyana	GEF-6	CI	Guyana	C&W	FSP	2.7	3.1
9717	Mediterranean Pollution Hot Spots Investment Project	GEF-6	UNEP	Regional	IW	FSP	5.0	546.5
9718	GEF GOLD: Contribution Towards the Elimination of Mercury and Improvement of the Gold Value Chain in the Artisanal and Small-Scale Gold Mining Sector	GEF-6	UNIDO	Burkina Faso	C&W	MSP	2.0	7.3
9722	Complete HCFC Phase-out in Uzbekistan through Promotion of Zero ODS Low GWP Energy Efficient Technologies	GEF-6	UNDP	Uzbekistan	C&W	MSP	2.0	6.6
9724	Phase out of Endosulfan in China	GEF-6	UNDP	China	C&W	MSP	2.0	7.9
9731	Development of a Minamata Initial Assessment	GEF-6	UNEP	Belarus	C&W	EA	0.2	0.1
9734	Develop the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs) in Bahrain	GEF-6	UNEP	Bahrain	C&W	EA	0.3	0.0
9737	National Action Plan on Mercury in the Artisanal and Small-Scale Gold Mining Sector in Ecuador	GEF-6	UNIDO	Ecuador	C&W	EA	0.5	0.1
9751	Development of a Minamata Initial Assessment in El Salvador	GEF-6	UNEP	El Salvador	C&W	EA	0.2	0.0
9755	Development of Minamata Initial Assessment and National Action Plan for Artisanal and Small Scale Gold Mining in Indonesia	GEF-6	UNEP	Indonesia	C&W	EA	0.7	0.0

GEF Interventions in the Chemicals and Waste Focal Area

GEF ID	Project title	GEF period	GEF Agency	Country	Focal area	Modality	Funding (mil. \$)	
							GEF grant	Cofinancing
11170	Eliminating hazardous chemicals from supply chains - Eliminating hazardous chemicals from supply chains in Cambodia	GEF-8	UNEP	Cambodia	MF	FSP	6.0	36.5
9765	Review and Update of the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs)	GEF-6	UNEP	Azerbaijan	C&W	EA	0.3	0.0
9771	Global Best Practices on Emerging Chemical Policy Issues of Concern under the Strategic Approach to International Chemicals Management (SAICM)	GEF-6	UNEP	Global	C&W	FSP	8.2	21.3
9841	Enabling Activities to Review and Update the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs)	GEF-6	UNIDO	Botswana	C&W	EA	0.2	0.2
9850	Africa Environmental Health and Pollution Management Project - Tanzania	GEF-6	WB	Tanzania	C&W	FSP	7.3	150.3
9851	Africa Environmental Health and Pollution Management Project - Ghana	GEF-6	WB	Ghana	C&W	FSP	8.7	50.6
9852	Africa Environmental Health and Pollution Management Project - Zambia	GEF-6	WB	Zambia	C&W	FSP	8.3	60.3
9853	Africa Environmental Health and Pollution Management Project - Kenya	GEF-6	WB	Kenya	C&W	FSP	8.1	40.6
9854	Africa Environmental Health and Pollution Management Project - Senegal	GEF-6	WB	Senegal	C&W	FSP	5.5	300.3
9855	Knowledge Exchange and Institutional Partnerships to Reduce Environmental Health Risks From Exposure To Harmful Chemicals And Waste	GEF-6	WB	Regional	C&W	FSP	4.3	10.9
9865	Development of Minamata Initial Assessments (MIA) in the Caribbean (Antigua and Barbuda, Dominica, Grenada, St. Vincent and the Grenadines)	GEF-6	UNEP	Regional	C&W	EA	0.6	0.0
9884	Integrated SC Toolkit to Improve the Transmission of Information under Articles 07 and 15	GEF-6	UNEP	Global	C&W	MSP	2.0	7.2
9885	Minamata Initial Assessment for Argentina	GEF-6	UNDP	Argentina	C&W	EA	0.2	0.0
9916	Making Polychlorinated Biphenyls Management and Elimination Sustainable in Morocco	GEF-6	UNIDO	Morocco	C&W	MSP	1.8	5.7
9930	Development of A Minamata Initial Assessment in Niue	GEF-6	UNEP	Niue	C&W	EA	0.1	0.0
9932	Development of a Minamata Initial Assessment in the Federated States of Micronesia	GEF-6	UNEP	Micronesia, Fed. Sts.	C&W	EA	0.1	0.0
9991	Development of Minamata Initial Assessments (MIA) in the Caribbean (Belize)	GEF-6	UNEP	Belize	C&W	EA	0.2	0.0
9992	Development of A Minamata Initial Assessment in Marshall Islands	GEF-6	UNEP	Marshall Islands	C&W	EA	0.1	0.0
10064	Demonstration Investments in Eco-Waste Infrastructure Solutions: Thanlyin and Ayeyarwady Watersheds (which cover Mandalay, Hpa-An and Mawlaymine)	GEF-6	ADB	Myanmar	IW	FSP	4.6	80.0
10074	Enabling concerted Source to Sea management in the Paz river watershed	GEF-7	FAO	Regional	MF	MSP	1.7	2.3

GEF ID	Project title	GEF period	GEF Agency	Country	Focal area	Modality	Funding (mil. \$)	
							GEF grant	Cofinancing
10080	AIM-WELL: Algeria Integrated Management of Waste Energy at the Local Level	GEF-7	UNDP	Algeria	CC	FSP	4.4	20.3
10082	Enhancing environmental performance in the expanded and extruded polystyrene foam industries in Turkey	GEF-7	UNIDO	Türkiye	C&W	FSP	3.2	26.3
10086	Reducing global environmental risks through the monitoring and development of alternative livelihood for the primary mercury mining sector in Mexico	GEF-7	UNEP	Mexico	C&W	FSP	7.0	51.1
10094	Environmentally Sound Management of POPs, Mercury and other Hazardous Chemicals in Argentina	GEF-7	UNDP	Argentina	C&W	FSP	8.9	46.6
10117	Green Sharm El Sheikh	GEF-7	UNDP	Egypt, Arab Rep.	MF	FSP	6.2	56.7
10119	Global best practices on emerging chemical policy issues of concern under the Strategic Approach to International Chemicals Management (SAICM) (EDCs, EPPPs)	GEF-7	UNEP	Global	C&W	MSP	1.0	3.4
10126	Minamata Initial Assessment in Lebanon	GEF-7	UNIDO	Lebanon	C&W	EA	0.2	0.0
10130	Review and update of the national implementation plan for the Stockholm Convention on Persistent Organic Pollutants (POPs)	GEF-7	UNDP	Jamaica	C&W	EA	0.3	0.0
10132	Minamata Convention: Initial assessment for Rwanda	GEF-7	UNIDO	Rwanda	C&W	EA	0.2	0.0
10133	Minamata Initial Assessment in Liberia	GEF-7	UNIDO	Liberia	C&W	EA	0.2	0.0
10134	National action plan on mercury in the artisanal and small-scale gold mining sector in Liberia	GEF-7	UNIDO	Liberia	C&W	EA	0.5	0.0
10135	National action plan on mercury in the artisanal and small-scale gold mining sector in Angola	GEF-7	UNIDO	Angola	C&W	EA	0.5	0.1
10136	National action plan on mercury in the artisanal and small-scale gold mining sector in Rwanda	GEF-7	UNIDO	Rwanda	C&W	EA	0.5	0.1
10141	Circular Economy approaches for the electronics sector in Nigeria	GEF-7	UNEP	Nigeria	C&W	MSP	2.0	13.1
10148	Minamata initial assessment and national action plan on the artisanal and small-scale gold mining sector in Nicaragua	GEF-7	UNIDO	Nicaragua	C&W	EA	0.7	0.0
10153	Development of National Action Plan for Artisanal and Small Scale Gold Mining in the Co-operative Republic of Guyana	GEF-7	UNEP	Guyana	C&W	EA	0.5	0.0
10154	Review and Update of the National Implementation Plan for Guyana under the Stockholm Convention on Persistent Organic Pollutants (POPs)	GEF-7	UNEP	Guyana	C&W	EA	0.3	0.0
10163	Improvement of the environmental performance of the foam sector: Phase out and management of hexabromocyclododecane (HBCD) in China	GEF-7	UNIDO	China	C&W	FSP	12.6	100.1
10202	Strengthening national capacity to manage industrial POPs within the framework of national and international guidelines on chemical substances and hazardous waste management	GEF-7	UNDP	Colombia	C&W	FSP	5.2	28.9
10218	AFLDC-2 Scaling-up Investment and Technology Transfer to Facilitate Capacity Strengthening and Technical Assistance for the Implementation of Stockholm and Minamata Conventions in African LDCs	GEF-7	AfDB	Regional	C&W	FSP	21.3	237.1

GEF ID	Project title	GEF period	GEF Agency	Country	Focal area	Modality	Funding (mil. \$)	
							GEF grant	Cofinancing
10258	ISLANDS-Caribbean Incubator Facility	GEF-7	IDB	Regional	C&W	FSP	10.0	75.0
10261	ISLANDS - Indian Ocean Child Project	GEF-7	UNDP	Regional	C&W	FSP	13.0	187.6
10266	Communications, Coordination and Knowledge Management Project	GEF-7	UNEP	Global	C&W	MSP	2.0	10.9
10267	ISLANDS - Pacific Child Project	GEF-7	UNEP	Regional	C&W	FSP	20.0	94.2
10279	ISLANDS - Caribbean Child Project	GEF-7	UNEP	Regional	C&W	FSP	11.0	47.0
10310	National action plan in the artisanal and small-scale gold mining sector in the Plurinational State of Bolivia	GEF-7	UNIDO	Bolivia	C&W	EA	0.5	0.0
10328	Circular Economy Regional Initiative (CERI)	GEF-7	EBRD	Regional	MF	FSP	13.8	141.9
10336	Agtech for inclusion and sustainability: SP Ventures' Regional Fund (Agventures II)	GEF-7	IDB	Regional	MF	FSP	5.0	55.0
10349	Demonstration of production phase-out of mercury-containing medical thermometers and sphygmomanometers and promoting the application of mercury-free alternatives in medical facilities in China	GEF-7	UNDP	China	C&W	FSP	16.0	112.0
10353	The Global Greenchem Innovation and Network Programme	GEF-7	UNIDO	Global	C&W	FSP	12.6	127.6
10354	Review and Update of the National Implementation Plan for the Republic of Moldova under the Stockholm Convention on Persistent Organic Pollutants (POPs)	GEF-7	UNEP	Moldova	C&W	EA	0.3	0.0
10368	Environmentally sound destruction of PCBs in Brazil	GEF-7	UNDP	Brazil	C&W	FSP	9.7	62.2
10373	Supporting a Green Economy - Decoupling Hazardous Waste Generation from Economic Growth in Rwanda	GEF-7	UNDP	Rwanda	C&W	FSP	6.3	34.1
10383	Development of National Action Plan for the Artisanal and Small Scale Gold Mining in Côte d'Ivoire	GEF-7	UNEP	Côte d'Ivoire	C&W	EA	0.5	0.0
10401	Establishing a circular economy framework for the plastics sector in Ghana	GEF-7	UNIDO	Ghana	MF	FSP	7.0	81.9
10419	Environmentally sound management of PCBs, Mercury and other toxic chemicals in Peru	GEF-7	UNDP	Peru	C&W	FSP	4.7	34.0
10422	Development of National Action Plan for the Artisanal and Small Scale Gold Mining in Mexico	GEF-7	UNEP	Mexico	C&W	EA	0.5	0.0
10423	Development of National Action Plan for the Artisanal and Small Scale Gold Mining in Costa Rica	GEF-7	UNEP	Costa Rica	C&W	EA	0.5	0.0
10425	Reducing Community Carbon Footprint by a Circular Economy Approach in the Republic of Serbia	GEF-7	UNDP	Serbia	MF	MSP	1.8	14.2
10440	National action plan on mercury in the artisanal and small-scale gold mining sector in Cameroon	GEF-7	UNIDO	Cameroon	C&W	EA	0.5	0.0
10448	Development of National Action Plan for Artisanal and Small-Scale Gold Mining in Chad	GEF-7	UNEP	Chad	C&W	EA	0.5	0.0
10453	Promoting the transition to a circular economy in Uruguay through cleantech innovations	GEF-7	UNIDO	Uruguay	CC	MSP	1.3	9.8
10456	Accelerating cleantech innovation and entrepreneurship in SMEs to support the transition towards circular economy and create green jobs	GEF-7	UNIDO	South Africa	CC	FSP	3.2	17.8

GEF ID	Project title	GEF period	GEF Agency	Country	Focal area	Modality	Funding (mil. \$)	
							GEF grant	Cofinancing
10472	Additional Caribbean Regional Project	GEF-7	UNEP	Regional	C&W	FSP	10.0	37.4
10512	Review and Update of the National Implementation Plan for Niue and Vanuatu under the Stockholm Convention on Persistent Organic Pollutants	GEF-7	UNEP	Regional	C&W	EA	0.2	0.0
10519	Reduce the impact and release of mercury and POPs in Vietnam through lifecycle approach and Ecolabel	GEF-7	UNDP	Viet Nam	C&W	FSP	4.6	28.6
10523	Reducing uses and releases of chemicals of concern, including POPs, in the textiles sector	GEF-7	UNEP	Regional	C&W	FSP	8.9	43.3
10524	Capacity strengthening for management of invasive alien species in South Africa to enhance sustainable biodiversity conservation and livelihoods improvement	GEF-7	UNEP	South Africa	BD	FSP	3.4	22.8
10526	Eliminate mercury use and adequately manage mercury and mercury wastes in the chlor alkali sector in Mexico	GEF-7	UNEP	Mexico	C&W	FSP	12.0	128.2
10527	Development of National Action Plan for Artisanal and Small-Scale Gold Mining in Togo	GEF-7	UNEP	Togo	C&W	EA	0.5	0.0
10531	Integrated watershed management of the Putumayo-Içá river basin	GEF-7	WB	Regional	MF	FSP	12.8	89.7
10543	Promotion of circular economy in the textile and garment sector through the sustainable management of chemicals and waste in Lesotho, Madagascar and South Africa	GEF-7	UNIDO	Regional	C&W	FSP	7.4	47.4
10546	Plastik Sulit: Accelerating Circular Economy for Difficult Plastics in Indonesia	GEF-7	ADB	Indonesia	MF	FSP	7.1	61.7
10547	Reduce marine plastics and plastic pollution in Latin American and Caribbean cities through a circular economy approach	GEF-7	UNEP	Regional	MF	FSP	7.0	35.4
10564	Environmentally Sustainable Development of the Iron and Steel Industry	GEF-7	WB	China	C&W	FSP	25.0	175.0
10582	Development of Minamata Initial Assessment in Tuvalu	GEF-7	UNEP	Tuvalu	C&W	EA	0.1	0.0
10585	Development of Minamata Initial Assessment in The Bahamas	GEF-7	UNEP	Bahamas	C&W	EA	0.2	0.0
10602	GEF GOLD+ Bolivia: Enhancing the formalization and mercury reduction in artisanal and small-scale gold mining in the Plurinational State of Bolivia	GEF-7	UNIDO	Bolivia	C&W	FSP	6.6	21.8
10603	GEF GOLD+ in Nigeria: Enhancing the formalization and mercury-free gold in Nigeria	GEF-7	UNIDO	Nigeria	C&W	FSP	3.9	29.4
10604	GEF GOLD+ in Madagascar: Enhancing the formalization and mercury reduction in artisanal and small-scale gold mining in Madagascar	GEF-7	UNIDO	Madagascar	C&W	FSP	5.0	31.3
10606	GEF GOLD+: Global coordination, knowledge management and outreach	GEF-7	UNEP	Global	C&W	FSP	7.9	1.1
10614	GEF GOLD+: Advancing formalization and mercury-free gold in Honduras	GEF-7	UNDP	Honduras	C&W	FSP	4.0	19.1
10615	GEF GOLD+: Advancing formalization and mercury-free gold in Suriname	GEF-7	UNDP	Suriname	C&W	FSP	5.3	19.7
10616	GEF GOLD+ in Ghana: Advancing formalization and mercury-free gold in Ghana	GEF-7	UNDP	Ghana	C&W	FSP	6.4	44.7

GEF ID	Project title	GEF period	GEF Agency	Country	Focal area	Modality	Funding (mil. \$)	
							GEF grant	Cofinancing
10618	Global Opportunities for the Long-term Development of ASGM (GOLD+) in Uganda	GEF-7	UNEP	Uganda	C&W	FSP	5.5	13.0
10619	Global Opportunities for the Long-term Development of ASGM (GOLD+) in the Republic of the Congo	GEF-7	UNEP	Congo, Rep.	C&W	FSP	2.7	7.8
10628	Promoting Resource Efficiency and Circularity to Reduce Plastic Pollution for Asia and the Pacific	GEF-7	ADB	Regional	MF	MSP	2.0	73.7
10631	Minamata initial assessment and national action plan for the artisanal and small-scale gold mining sector in Afghanistan	GEF-7	UNIDO	Afghanistan	C&W	EA	0.7	0.0
10652	Development of Minamata Initial Assessment in Cuba	GEF-7	UNEP	Cuba	C&W	EA	0.2	0.0
10658	Transforming the Fashion Sector to Drive Positive Outcomes for Biodiversity, Climate, and Oceans	GEF-7	CI	Global	MF	MSP	2.0	4.8
10673	Green Production and Sustainable Development in Secondary Aluminum, Lead, Zinc and Lithium Sectors in China	GEF-7	UNDP	China	C&W	FSP	15.8	110.4
10682	POPs and mercury-free solutions for environmentally sound waste management in Paraguay	GEF-7	UNIDO	Paraguay	C&W	FSP	4.0	70.1
10683	Promotion of circular economy in the textile and garment sector through the sustainable management of chemicals and waste in Ethiopia	GEF-7	UNIDO	Ethiopia	C&W	FSP	3.0	30.6
10686	Reduction of POPs and UPOPs through integrated sound management of chemicals	GEF-7	UNDP	Philippines	C&W	FSP	6.6	46.2
10711	Innovating Eco-Compensation Mechanisms in Yangtze River Basin (YRB)	GEF-7	ADB	China	MF	FSP	8.1	109.5
10716	Phasing out mercury measuring devices in healthcare	GEF-7	UNEP	Global	C&W	FSP	8.0	126.3
10721	Environmentally sound management of hazardous wastes containing POPs and Mercury	GEF-7	UNDP	Panama	C&W	FSP	2.7	26.1
10722	Facilitating Cleaner and Energy Efficient Phosphate Chemicals Industry in China (PhosChemEE) Project	GEF-7	UNDP	China	CC	FSP	9.3	97.8
10748	Assessment of existing and future emissions reduction from the coal sector toward the implementation of the Minamata and Stockholm Conventions	GEF-7	UNEP	Global	C&W	MSP	0.6	0.7
10785	Global Development, Review and Update of National Implementation Plans (NIPs) under the Stockholm Convention (SC) on Persistent Organic Pollutants (POPs)	GEF-7	UNEP	Global	C&W	EA	8.0	0.7
10798	Reduction of unintentionally-produced persistent organic pollutants and mercury through an environmentally-sound approach on health care wastes management in the Philippines with a special focus on the pandemic	GEF-7	UNIDO	Philippines	C&W	FSP	4.9	71.8
10803	Reduction of UPOPs through Waste Management in a Circular Economy	GEF-7	WB	Lebanon	C&W	FSP	8.9	62.0
10810	Eliminating mercury skin lightening products	GEF-7	UNEP	Global	C&W	MSP	2.0	15.0
10811	Development of Minamata Convention Initial Assessment (MIA) for Sultanate of Oman	GEF-7	UNEP	Oman	C&W	EA	0.2	0.0
10835	GEF GOLD+: Advancing formalization and mercury-free gold in Ecuador	GEF-7	UNDP	Ecuador	C&W	FSP	4.0	33.2

GEF ID	Project title	GEF period	GEF Agency	Country	Focal area	Modality	Funding (mil. \$)	
							GEF grant	Cofinancing
10837	Global Opportunities for Long-term Development of ASGM in Zambia	GEF-7	UNEP	Zambia	C&W	FSP	2.7	22.4
10838	Global Opportunities for Long-term Development of ASGM in Sierra Leone	GEF-7	CI	Sierra Leone	C&W	FSP	2.7	15.5
10844	Global Opportunities for Long-term Development of ASGM in Guinea	GEF-7	UNEP	Guinea	C&W	FSP	5.3	12.0
10845	Global Opportunities for Long-term Development of ASGM in Côte d'Ivoire	GEF-7	UNEP	Côte d'Ivoire	C&W	FSP	3.9	13.5
10846	GEF GOLD+ Mali: Enhancing the formalization and mercury reduction in the artisanal and small-scale gold mining in Mali	GEF-7	UNIDO	Mali	C&W	FSP	5.2	31.7
10847	GEF GOLD+ Nicaragua: Enhancing the formalization and mercury reduction in the artisanal and small-scale gold mining in Nicaragua	GEF-7	UNIDO	Nicaragua	C&W	FSP	3.4	45.5
10848	ISLANDS - Atlantic Regional Project	GEF-7	UNEP	Regional	C&W	FSP	9.0	39.8
10860	Development of National Action Plan for Artisanal and Small-Scale Gold Mining in Brazil	GEF-7	UNEP	Brazil	C&W	EA	1.0	0.0
11197	Circular Solutions to Plastic Pollution: Global Platform	GEF-8	UNEP	Global	MF	FSP	16.0	114.2
10868	Integrated Management and Environmentally Sound Disposal of POPs Pesticides and Mercury in Healthcare and Agricultural Sectors in Sri Lanka	GEF-7	UNDP	Sri Lanka	C&W	FSP	5.0	33.2
10879	Improved Management of Ewaste and Healthcare Waste to Reduce Emissions of Unintentionally Produced POPs (UPOPs)	GEF-7	WB	Egypt, Arab Rep.	C&W	FSP	9.1	142.0
10885	Accelerating low-carbon circular economy through cleantech innovation towards sustainable development in Pakistan	GEF-7	UNIDO	Pakistan	CC	MSP	1.8	11.8
10886	Accelerating low-carbon circular economy through cleantech innovation towards sustainable development in Viet Nam	GEF-7	UNIDO	Viet Nam	CC	MSP	1.7	9.4
10891	Development of Minamata Convention Initial Assessment (MIA) For the State of Qatar	GEF-7	UNEP	Qatar	C&W	EA	0.2	0.0
10901	Financing Agrochemical Reduction and Management (FARM) in Ecuador	GEF-7	UNDP	Ecuador	C&W	FSP	4.0	26.9
10902	FARM: Strengthening investment for adoption of alternatives and sustainable management of agrochemicals and agriplastics in Africa and Latin America through pilots in Kenya and Uruguay	GEF-7	UNEP	Global	C&W	FSP	7.5	88.9
10903	FARM: Global Coordination, Knowledge Management and Common Finance Tools	GEF-7	UNEP	Global	C&W	FSP	7.5	32.8
10904	Financing Agrichemicals Removal and Management (FARM) in Lao PDR	GEF-7	UNDP	Lao PDR	C&W	FSP	4.0	20.4
10910	Promoting eco-friendly crop protection solutions for persistent organic pollutant and highly hazardous pesticide reduction in Asia	GEF-7	UNIDO	Regional	C&W	FSP	7.0	51.7
10915	Financing Agrochemical Reduction and Management (FARM) in Agri-Food Value Chains	GEF-7	ADB	Viet Nam	C&W	FSP	7.5	109.2
10922	Development of National Action Plan for the Artisanal and Small-Scale Gold Mining Sector in Cambodia	GEF-7	UNEP	Cambodia	C&W	EA	0.5	0.0

GEF ID	Project title	GEF period	GEF Agency	Country	Focal area	Modality	Funding (mil. \$)	
							GEF grant	Cofinancing
10924	Review and Update of the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs) in Albania, Armenia and Kazakhstan	GEF-7	UNEP	Global	C&W	EA	0.9	0.1
10925	Review and Update of the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs) in Algeria, Togo and Tunisia	GEF-7	UNEP	Global	C&W	EA	0.9	0.0
10936	Accelerate implementation of dental amalgam provisions and strengthen country capacities in the environmental sound management of associated wastes under the Minamata Convention	GEF-7	UNEP	Global	C&W	MSP	2.0	11.3
10940	Development of National Action Plan for Artisanal and Small-Scale Gold Mining in the Islamic Republic of Pakistan	GEF-7	UNEP	Pakistan	C&W	EA	0.5	0.0
11047	Accelerate Minamata Convention compliance through improved understanding and control of mercury trade in Latin America	GEF-8	UNEP	Regional	C&W	FSP	3.0	15.8
10976	Review and Update of the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs) in Lao PDR and Maldives	GEF-7	UNEP	Global	C&W	EA	0.6	0.0
10977	Review and Update of the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs) in Ethiopia, Malawi and Zambia	GEF-7	UNEP	Regional	C&W	EA	0.9	0.0
10978	Review and Update of National Implementation Plans (NIPs) under the Stockholm Convention (SC) on Persistent Organic Pollutants (POPs) for India	GEF-7	UNEP	India	C&W	EA	1.0	0.0
10983	Advanced Minamata Assessment in Thailand	GEF-7	UNIDO	Thailand	C&W	EA	0.5	0.0
11005	Reduction of industrial persistent organic pollutant chemicals in manufacturing and recycling sectors through life-cycle approaches in Georgia	GEF-7	UNIDO	Georgia	C&W	MSP	2.0	14.6
11015	Strengthening the national capacity for the management of POPs in Costa Rica	GEF-7	UNDP	Costa Rica	C&W	FSP	4.0	23.6
11017	Supporting the Implementation of the National Action Plan on Marine Plastic Litter in the context of Green Recovery post-COVID 19 in Viet Nam	GEF-7	UNDP	Viet Nam	IW	MSP	2.0	10.1
11021	Review and update of the national implementation plan for the Stockholm Convention on Persistent Organic Pollutants (POPs)	GEF-7	UNDP	Mauritius	C&W	EA	0.3	0.0
11177	Global replication to eliminate hazardous chemicals from supply chains	GEF-8	UNEP	Global	MF	FSP	8.7	26.9
11048	Global Opportunities for Long-Term Development of the Artisanal and Small-Scale Gold Mining Sector in Zimbabwe- GEF planetGOLD Zimbabwe	GEF-8	UNEP	Zimbabwe	C&W	FSP	5.0	18.8
11049	Circular and POPs-free Plastics in Africa	GEF-8	UNEP	Regional	C&W	FSP	11.0	79.9
11171	Eliminating hazardous chemicals from supply chains in Mongolia	GEF-8	UNDP	Mongolia	MF	FSP	3.3	40.1
11172	Bananas in Pakistan's Bioeconomy: Transforming Waste into Textile	GEF-8	FAO	Pakistan	MF	FSP	3.3	17.0
11174	Eliminating Hazardous Chemicals from Supply Chains in Costa Rica	GEF-8	UNIDO	Costa Rica	MF	FSP	4.2	191.7

GEF ID	Project title	GEF period	GEF Agency	Country	Focal area	Modality	Funding (mil. \$)	
							GEF grant	Cofinancing
11175	Eliminating hazardous chemicals from supply chains in Ecuador	GEF-8	UNDP	Ecuador	MF	FSP	5.6	46.6
11176	Elimination of Hazardous chemicals from Supply Chains Integrated Programme in Trinidad and Tobago	GEF-8	UNEP	Trinidad and Tobago	MF	FSP	2.7	2.7
11178	Eliminating hazardous chemicals from textile fashion supply chains in India	GEF-8	UNIDO	India	MF	FSP	7.8	44.2
11182	Innovation ecosystem for the circularity of plastics, reduction of consumption, and disposal of single-use plastic in the HORECA sector (Plastic IP)	GEF-8	UNEP	Brazil	MF	FSP	8.1	216.6
11183	Reducing Single Use Plastic pollution in the food and beverage sector (SUPIFB) through a circular economy approach in Centre, Centre-Ouest and Hauts basin regions (Plastic IP)	GEF-8	UNEP	Burkina Faso	MF	FSP	2.7	2.8
11184	Promoting circular solutions for the food & beverage sector to tackle plastic pollution in Cambodia (Plastic IP)	GEF-8	UNEP	Cambodia	MF	FSP	2.7	31.6
11185	Reducing Single-use Plastics on Small-island Economies (RESPONSE - Plastic IP)	GEF-8	UNEP	Cook Islands	MF	FSP	6.2	35.1
11187	Circular Solutions to Plastic Pollution in the Dominican Republic	GEF-8	UNDP	Dominican Republic	MF	FSP	3.8	48.6
11066	Yield Lab Opportunity Fund I: Accelerating technology and local innovation for sustainable and decarbonized food systems in Latin America and the Caribbean	GEF-8	IDB	Regional	MF	FSP	6.0	27.3
11188	Operationalizing and implementing circular economy solutions to minimize plastic waste and reduce plastic pollution from food and beverage packaging (Plastic IP)	GEF-8	UNEP	India	MF	FSP	8.1	43.7
11191	Circular Solutions to Plastic Pollution in Peru	GEF-8	UNEP	Peru	MF	FSP	4.4	57.8
11192	Circular solutions to plastic pollution in Morocco	GEF-8	UNIDO	Morocco	MF	FSP	6.2	53.5
11193	Circular Solutions to Plastic Pollution in Nigeria	GEF-8	UNEP	Nigeria	MF	FSP	6.0	34.2
11194	Circular solutions to plastic pollution in the Philippines	GEF-8	UNIDO	Philippines	MF	FSP	8.4	58.5
11196	Circular solutions to plastic pollution in South Africa	GEF-8	UNIDO	South Africa	MF	FSP	6.8	76.1
9571	Promoting Accelerated Uptake of Environmental Technologies and Promotion of Best Practices for Improved Water, Chemicals, and Waste Management in the Black Sea Basin	GEF-6	EBRD	Regional	MF	FSP	5.9	27.0
9756	Completion of the Phase Out of HCFCs Consumption with Support of Low GWP Technologies	GEF-6	UNDP	Belarus	C&W	MSP	1.7	6.9
11112	Global Opportunities for the Long-Term Development of the Artisanal and Small-Scale Gold Mining Sector in Paraguay - planetGOLD Paraguay	GEF-8	UNEP	Paraguay	C&W	FSP	3.0	25.2
11173	Eliminating Hazardous Chemicals from Supply Chains in Peru	GEF-8	UNDP	Peru	MF	FSP	4.2	41.8
11186	Circular solutions to plastic pollution	GEF-8	UNDP	Costa Rica	MF	FSP	3.5	21.1
11189	Jordan Circular Solutions to Plastic Pollution IP Child Project	GEF-8	UNDP	Jordan	MF	FSP	4.4	47.3
11190	Promoting Circular Solutions to Single-Use Plastic Consumption in Lao PDR (Plastics IP)	GEF-8	WWF-US	Lao PDR	MF	FSP	4.0	6.8
11195	Support the management of plastic pollution in Senegal (Plastic IP)	GEF-8	UNDP	Senegal	MF	FSP	5.0	41.0

GEF ID	Project title	GEF period	GEF Agency	Country	Focal area	Modality	Funding (mil. \$)	
							GEF grant	Cofinancing
11211	Shifting to Zero Waste Against Pollution (SWAP) Initiative	GEF-8	UNDP	Global	C&W	FSP	28.0	294.5
11272	Reduced risks on human health & the environment through reduction of POPs & U-POPs in Eswatini	GEF-8	UNDP	Eswatini	C&W	FSP	4.9	31.1
4820	Enabling Activities to review and update the National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPs)	GEF-5	GEFSEC	Madagascar	C&W	EA	0.2	0.0
11326	IFC/GEF Green Global Supply Chain Decarbonization Platform	GEF-8	WB	Global	MF	FSP	0.0	0.0
11405	Accelerating Transition to a Circular Economy in India's Electrical and Electronic Sector through Sustainable Integrated Approaches	GEF-8	UNDP	India	C&W	FSP	0.0	0.0
11420	Sound management of polychlorobiphenyls in Côte d'Ivoire, phase II - objective 2028 of the Stockholm Convention	GEF-8	UNIDO	Côte d'Ivoire	C&W	FSP	0.0	0.0
11425	Polychlorinated Biphenyls-free Indonesia: Financing a shift to more efficient energy systems through the elimination of related waste and contaminated equipment	GEF-8	UNIDO	Indonesia	C&W	FSP	0.0	0.0
11428	Eliminating hazardous chemicals from the supply chain of the construction sector in Morocco	GEF-8	UNIDO	Morocco	C&W	FSP	0.0	0.0
11430	Integrated Program for HFC Phasing Down and Sustainable Cooling for Tajikistan	GEF-8	UNDP	Tajikistan	C&W	FSP	0.0	0.0
11434	Towards a more circular Uruguay (Uruguay + Circular)	GEF-8	UNDP	Uruguay	C&W	FSP	0.0	0.0
11450	Support to the Productive Development Bank for the deployment of the Eco-efficiency Credit Programme in Bolivia	GEF-8	UNDP	Bolivia	MF	FSP	0.0	0.0
11451	Integrated Management for Sustainable Reduction (IMSRed) of POPs, Highly Hazardous Pesticides, and industrial chemicals in Argentina	GEF-8	UNDP	Argentina	C&W	FSP	0.0	0.0
5074	Environmentally Sound Management and Disposal of PCBs in the Power and Non-Power Sector	GEF-5	UNDP	Iran	C&W	FSP	0.0	0.0
11353	Global Coordination Project-Clean and Healthy Ocean Integrated Program	GEF-8	FAO	Global	MF	FSP	0.0	0.0
11357	Sustainable Nitrogen Management for a Clean & Healthy Ocean: Maldives as a SIDS regional catalyst	GEF-8	UNEP	Maldives	MF	FSP	0.0	0.0
11473	Greening Transportation Infrastructure Development: Global Platform	GEF-8	WWF-US	Global	MF	FSP	0.0	0.0
10972	Integrated Persistent Organic Pollutants (POPs) Management Project	GEF-7	WB	Iraq	C&W	FSP	13.5	94.0
10864	Sustainable Mercury Management in Non-ferrous Metal Industry	GEF-7	WB	China	C&W	FSP	20.3	140.0
11062	Natural Capital Fund (NCF): Investing in Nature-Positive Agri-Food Enterprises in Asia and the Pacific	GEF-8	ADB	Regional	MF	FSP	13.8	632.7
11259	Trinidad and Tobago - Nature Based Solutions in Productive Landscapes	GEF-8	FAO	Trinidad and Tobago	MF	FSP	3.5	19.6

Source: GEF Portal.

Note: GEF Agency: FAO = Food and Agriculture Organization of the United Nations, UNDP = United Nations Development Programme, UNEP = United Nations Environment Programme, UNIDO = United Nations Industrial Development Organization, WB = World Bank; *focal area*: BD = biodiversity; CC = climate change, C&W = chemicals and waste, MF = multifocal; *modality*: FSP = full-size project, MSP = medium-size project.

Evaluation matrix

Evaluation question	Indicator	Information source	Method
Overall			
<ul style="list-style-type: none"> To what extent has the GEF helped countries fulfill their commitments toward the Stockholm and Minamata Conventions? To what extent has the GEF supported chemical conventions for which it is not a financial mechanism (Montreal Protocol and Strategic Approach to International Chemicals Management)? Is the evolution of the GEF's strategy in chemicals and waste consistent with the conventions and the pressing needs of addressing the PCBs, POPs, and other relevant chemicals in the sector today? 	<ul style="list-style-type: none"> Coherence between GEF chemicals and waste strategies and the conventions' guidance/decisions Coherence between GEF chemicals and waste strategies and chemicals and waste projects 	<ul style="list-style-type: none"> Chemicals and waste project documents Stockholm Convention and Minamata Convention documentation 	<ul style="list-style-type: none"> Project portfolio review Guidance and strategy mapping
Is the GEF's approach through its projects and programs and current sector approaches relevant to addressing the most pressing needs of today? What are the gaps/limitations?	Relevance assessment	GEF programming directions	Analysis of programming directions
Are the recent projects (recently approved and ongoing) addressing the right issues, and are they developed appropriately?	Effectiveness assessment	CEO approval documents and latest PIRs	Analysis of ongoing projects
How have GEF interventions interacted thus far with similar government-, donor-, and/or private sector-funded activities in terms of either contributing to or hindering policy coherence?	Level of cooperation with parallel projects and impact on policy coherence	<ul style="list-style-type: none"> Chemicals and waste projects with terminal evaluation reports Chemicals and waste project documents 	<ul style="list-style-type: none"> Terminal evaluation report analysis Portfolio desk review
To what extent have the chemicals and waste projects affected production, use, consumption, and emissions/releases of the target chemicals and waste?	Quantities of POPs, ODS, mercury, and other chemicals and waste of global concern phased out, reduced, or disposed	Chemicals and waste projects with terminal evaluation reports	Terminal evaluation report analysis

Evaluation question	Indicator	Information source	Method
<ul style="list-style-type: none"> To what extent has GEF programming contributed to greening of the chemicals supply chain through identification and addressing entry and exit points of the supply chain? To what extent have chemicals and waste projects had on strengthening of life-cycle management of chemicals? 	<ul style="list-style-type: none"> Inclusion of green supply chain management in chemicals and waste projects Reported effects of chemicals and waste projects on life-cycle management of chemicals 	<ul style="list-style-type: none"> Chemicals and waste project documents Chemicals and waste projects with terminal evaluation reports 	<ul style="list-style-type: none"> Portfolio analysis Terminal evaluation report analysis
To what extent have the chemicals and waste projects been effective in producing expected global environmental benefits and associated local socioeconomic benefits?	Reported global environmental benefits and socioeconomic benefits	<ul style="list-style-type: none"> Chemicals and waste projects with terminal evaluation reports OPS evaluation reports 	<ul style="list-style-type: none"> Terminal evaluation report analysis OPS reports review
<ul style="list-style-type: none"> How sustainable were country-led monitoring systems that were created to track chemicals and waste, electronic waste, cross-border shipping, and medical waste? How effective were these systems in identifying chemical stockpiles for disposal and understanding root causes? 	Inclusion of national monitoring systems in implementation of chemicals and waste projects	<ul style="list-style-type: none"> Chemicals and waste projects with terminal evaluation reports OPS evaluation reports 	<ul style="list-style-type: none"> Terminal evaluation report analysis OPS reports review PCBs, health care waste (PCB cross-border shipping)
Are there any effects of the chemicals and waste projects (e.g. co-benefits) in other GEF focal areas (integration, multifocal projects)?	Reported synergies and co-benefits of chemicals and waste projects in other GEF focal areas	<ul style="list-style-type: none"> Chemicals and waste multifocal areas projects with terminal evaluation reports OPS evaluation reports 	<ul style="list-style-type: none"> Terminal evaluation report analysis OPS reports review
<ul style="list-style-type: none"> What has been the nature of private sector engagement and level of cofinancing? What are success factors for private sector involvement and cofinancing in GEF projects? 	Level of private sector involvement and cofinancing in chemicals and waste projects	<ul style="list-style-type: none"> Chemicals and waste projects with terminal evaluation reports OPS evaluation reports 	<ul style="list-style-type: none"> Terminal evaluation report analysis OPS reports review
To what extent has integrated project design enabled a shift from a chemical-by-chemical approach to a sector approach, and what are the related contributing and hindering factors?	Evidence of integrated project design	GEF-7 and GEF-8 project documents	Portfolio analysis (quantitative analysis)
To what extent have the cross-cutting issues of gender and resilience been taken into consideration in programming and implementation of chemicals and waste projects?	Level of gender considerations and gender markers in chemicals and waste projects	<ul style="list-style-type: none"> Chemicals and waste project documents PIRs 	<ul style="list-style-type: none"> Portfolio analysis PIR review
How has the chemicals and waste support to LDCs and SIDs evolved over time (from GEF-5 to GEF-8)?	Number and focus of chemicals and waste projects in LDCs and SIDs with	<ul style="list-style-type: none"> Chemicals and waste project documents Chemicals and waste projects with terminal evaluation reports in LDCs and SIDs 	<ul style="list-style-type: none"> Portfolio analysis Terminal evaluation report analysis

Evaluation question	Indicator	Information source	Method
Specific			
<ul style="list-style-type: none"> How well have PCB management issues been addressed through GEF projects? What is the GEF's effectiveness in phasing out PCBs? Are there any residual issues/gaps on PCBs that still need addressing through GEF projects? 	<ul style="list-style-type: none"> Level of PCB focus of chemicals and waste projects Quantities of PCBs phased out 	<ul style="list-style-type: none"> Chemicals and waste project documents Chemicals and waste projects with terminal evaluation reports 	<ul style="list-style-type: none"> Portfolio analysis Terminal evaluation report analysis Case study
<ul style="list-style-type: none"> How has addressing pesticides in chemicals and waste projects evolved over time? What is the GEF's effectiveness in phasing out pesticides? 	Inclusion and achievement of targets on pesticides in chemicals and waste projects	<ul style="list-style-type: none"> Chemicals and waste project documents Chemicals and waste projects with terminal evaluation reports 	<ul style="list-style-type: none"> Portfolio analysis Terminal evaluation report analysis Case study
<ul style="list-style-type: none"> How has addressing health care waste in chemicals and waste projects evolved over time? What is the GEF's effectiveness in phasing out UPOPs? What has been the track record and performance of the GEF in addressing the environmental and socioeconomic (health) co-benefits based on previous project performance? 	Inclusion and achievement of targets on health care waste management and UPOPs in chemicals and waste projects	<ul style="list-style-type: none"> Chemicals and waste project documents Chemicals and waste projects with terminal evaluation reports 	<ul style="list-style-type: none"> Portfolio analysis Terminal evaluation report analysis Case study
What is the GEF's effectiveness in addressing plastic waste?	Inclusion of targets on plastics in chemicals and waste projects	<ul style="list-style-type: none"> Chemicals and waste project documents PIRs 	<ul style="list-style-type: none"> Portfolio analysis PIR review
What is the GEF's effectiveness in addressing electronic waste?	Inclusion of targets on electronic waste in chemicals and waste projects	<ul style="list-style-type: none"> Chemicals and waste project documents PIRs 	<ul style="list-style-type: none"> Portfolio analysis PIR review
<ul style="list-style-type: none"> To what extent did the chemicals and waste projects support the Minamata Convention ratification? What is the GEF's effectiveness in reduction of mercury (2-3 projects, part of health care waste, general mining, industry, design stage)? 	<ul style="list-style-type: none"> Evidence of support for Minamata Convention ratification Inclusion of targets on mercury in chemicals and waste projects 	<ul style="list-style-type: none"> Enabling activity completion reports Status of Minamata Convention ratification Chemicals and waste projects with terminal evaluation reports 	<ul style="list-style-type: none"> Enabling activity completion reports review Analysis of Minamata Convention ratification status Terminal evaluation report analysis Case study

Note: CEO = Chief Executive Officer; LDCs = least developed countries; ODS = ozone-depleting substances; OPS = comprehensive evaluation of the GEF; PCB = polychlorinated biphenyl; PIR = project implementation report; POPs = persistent organic pollutants; SIDS = small island developing states; UPOPs = unintentionally produced persistent organic pollutants.

Interviewees and site visits

Interviews prior to country visits

Evelyn Swain, GEF Secretariat
Anil Sookdeo, GEF Secretariat
Ibrahima Sow, GEF Secretariat
Seo-Jeong Yoon, GEF Secretariat
Abdelaziz Lagnaoui, World Bank
Philippe Ambrosi, World Bank, Senegal
Ernesto Sanchez-Triana, World Bank
Lilia Burunciuc, World Bank, Jamaica
Arame Tall, World Bank, Senegal
Ellysar Baroudy, World Bank, Senegal
Monica Gaba Kapadia, United Nations Development Programme (UNDP), Indonesia
Carlos Andres Hernandez, UNDP, Uruguay
Hoang Thanh Vinh, UNDP, Viet Nam
Magdalena Preve, UNDP, Uruguay
Barlevnico Marhehe, United Nations Environment Programme (UNEP), Switzerland
Kevin Helps, UNEP, Switzerland
Ludovic Bernaudat, UNEP, Switzerland
Victoria Luque, UNEP, Switzerland
Adelina Gashi, UNEP, Switzerland
Eloise Touni, UNEP, Switzerland
Jitendra Sharma, UNEP, Switzerland
Alexander Romanov, UNEP, Switzerland
Haosong Jiao, UNEP, Switzerland
Frank Moser, Stockholm Convention, Switzerland
Rolph Payet, Stockholm Convention, Switzerland
Ablaye Diao, Ministry of Environment, Senegal

Anthony Kellman, Food and Agriculture Organization of the United Nations, Barbados
Rio Deswandi, United Nations Industrial Development Organization, Indonesia
Jewel Batchasingh, Basel Convention Regional Centre for Training and Technology Transfer for the Caribbean (BCRC-Caribbean), Trinidad and Tobago
Shalina Rooplal, BCRC-Caribbean, Trinidad and Tobago
Janine Boodram, BCRC-Caribbean, Trinidad and Tobago
Keima Gardiner, Ministry of Planning, Trinidad and Tobago
David Persaud, Ministry of Planning, Trinidad and Tobago

Indonesia

Ministry of Industry Office, Jakarta
Ministry of Environment and Forestry, Kebon Nanas Office, Jakarta
Ministry of Environment and Forestry, Manggala Wanabakti Office, Jakarta
Environmental Agency of Cirebon City
World Resources Institute, Jakarta
African Development Bank, Jakarta
GIZ, Jakarta
Plastic Recyclers' Association
Bandung Polytechnic of Textile Technology
Site visit: PT PPLI (hazardous waste treatment company), Jakarta
Site visit: Cinangka Village (lead-contaminated site)
Site visit: National Research and Innovation Agency - Serpong (formerly BPPT/ Agency for the Assessment and Application of Technology), Jakarta
Site visit: Pertamina University, Jakarta
Site visit: Mini Recycling Depo, Babakan Village, Cirebon

Site visit: PT Gistex (textile company), Bandung

Site visit: Bantar Gebang, Bekasi (landfill site), Jakarta (Indonesian Scavenger Association)

North Macedonia

State Councilor for Industrial Pollution and Risk Management, Ministry for Environmental Protection

Site visit: Rade Koncar (private sector company engaged in production of transformers and safe disposal of PCBs)

Site visit: OHID factory (state-owned enterprise that produced Lindane which was to be safely removed)

Site visit: Chemistry Institute lab, Ss. Cyril and Methodius University, Skopje

Senegal

Baba Drame, GEF Operational Focal Point (OFP), Ministry of the Environment and Sustainable Development

Stockholm Convention Focal Point, Ministry of the Environment and Sustainable Development

Minamata Convention Focal Point, Ministry of the Environment and Sustainable Development

Poison Control Center

Ministry in Charge of Health

Site visit: Diamniadio industrial park, meeting with representative of APROSI (Ministry in charge of Industries)

Site visit: Mbeubeuss Landfill

Site visit: Hann Maristes lakes and the Dalifort basins

Site visit: Municipalities of Dalifort and Hann Bel Air (recycling bins and volunteers educating residents about garbage separation)

Site visit: Tivaouane (autoclave at private health clinic, electronic waste recycling center, sanitary landfill, garbage collection points)

Trinidad and Tobago

Pennelope Beckles Robinson, Minister of Planning and Development

Hayden Romano, Managing Director, Environmental Management Authority, GEF OFP

Environmental Policy and Planning Division

Customs and Excise Division

Ministry of Health, Pesticides and Toxic Chemicals Inspectorate

Ministry of Public Utilities

Trinidad and Tobago Solid Waste Management Company

Trinidad and Tobago Bureau of Standards

Institute of Marine Affairs

Ministry of Agriculture, Lands and Fisheries

Water Resources Agency

Ministry of Trade and Industry

Division of Food Security, Natural Resources, the Environment and Sustainable Development, Department of Environment, Tobago House of Assembly

Division of Health, Wellness and Social Protection

Crown Point Fire Station

Ambassador Christophe Eick, German Embassy

Site visit: Southwest Regional Health Authority, San Fernando General Hospital

Site visit: Forres Park landfill

Site visit: Guanapo landfill and remediation activities (leachate treatment ponds); Material Recovery Facility

Site visit: Beetham landfill (waste stabilization ponds)

Site visit: Recycling Waste and Logistics, Tobago Recycling Resource Initiative

Site visit: Studley Park landfill

Uruguay

GEF OFP, Legal Department, Former Project Coordinator, Ministry of Environment

Dental Program Coordinator, Ministry of Public Health

Consultant, amalgam project, Pan American Health Organization

Site visit: Toxicological Information and Advisory Center (for national assessment of mercury exposure among pregnant women and newborns)

Site visit: Pando Science and Technology Park (mercury testing site)

Site visit: Uruguay Technology Laboratory (mercury testing site)

Site visit: ABORGAMA waste management plant

Viet Nam

GEF OFP

Department for Economic Zones Management, Ministry of Planning and Investment

Vietnam Chemicals Agency, Ministry of Industry and Trade

Pollution Control Department, Ministry of Natural Resources and Environment

Vietnam Agency of Seas and Islands, Ministry of Natural Resources and Environment

Hanoi University of Science and Technology

Vietnam Zero Waste Alliance

Site visit: Industrial Park, Ninh Binh Province

Site visit: Plato Joint Stock Company, Thai Nguyen Province

Site visit: Hanoi Resource and Environment Monitoring Centre

Site visit: Vietnam Cleaner Production Centre Co. Ltd

GEF responses to chemicals and waste convention guidance

Table D.1 Stockholm Convention on Persistent Organic Pollutants

Decision	Guidance topic	Coverage in GEF focal area strategy
Priority areas		
SC-6/20.4	7 priority areas for 2014–18	Adopted under GEF-6 strategy Program 4
SC-8/16.2	7 priority areas for 2018–22	Adopted under GEF-7 strategy Program 1
SC-10/16.1	6 priority areas for 2022–26	Adopted under GEF-8 strategy Objectives 1–3
Article 3: Measures to reduce or eliminate releases from intentional production and use		
SC-10/16.1(d) SC-8/16.1(b)	Restriction of DDT production and use in disease vector control in accordance with World Health Organization recommendations and guidelines on the use of DDT in cases where locally safe, effective, and affordable alternatives are not available to a party to the convention	<ul style="list-style-type: none"> Specifically addressed in GEF-7 strategy Agricultural Program Implicitly addressed in GEF-6 strategy Program 3
SC-6/20.4(d), (e)	Elimination of production and use of DDT, except for parties that have notified the Secretariat of their intention to produce and/or use it	Implicitly addressed in GEF-6 strategy Program 3
SC-5/23.12	Provide financial support to development and deployment of products, methods, and strategies as alternatives to DDT	GEF-6 strategy
SC-10/16.18 SC-8/15.1(c), (d) SC-6/20.4(a), (b)	Provide enhanced support to achieve elimination of use of PCBs in equipment by 2025 and environmentally sound waste management of liquids containing PCBs and equipment contaminated with PCBs having a content above 0.005% as soon as possible and no later than 2028	<ul style="list-style-type: none"> Specifically addressed in GEF-7 strategy Industrial Program Implicitly addressed in GEF-6 strategy Program 3
SC-10/16.19	Encourage countries, bilateral and multilateral institutions, nongovernmental organizations, and private sources to provide complementary support for elimination of the use of PCBs in equipment by 2025 and environmentally sound waste management of liquids containing PCBs and equipment contaminated with PCBs having a content above 0.005% as soon as possible and no later than 2028	Specifically addressed in GEF-7 strategy Industrial Program

Decision	Guidance topic	Coverage in GEF focal area strategy
SC-5/23.3	Provide financial support for country-driven training and capacity-building activities related to activities of the PCBs elimination network	Implicitly addressed in GEF-6 strategy Program 3
SC-5/23.5	Recognize that financial and technical support is required to facilitate replacement of the use of endosulfan in developing countries	Implicitly addressed in GEF-6 strategy Program 3
SC-10/16.1(b)	Environmentally sound management and disposal of pesticides containing or consisting of POPs, including obsolete stockpiles	Included in GEF-8 strategy Objective 3
Article 5: Measures to reduce or eliminate releases from unintentional production		
SC-10/16.1(f)	Introduction and use of BAT/BEP to minimize and ultimately eliminate releases of unintentionally produced POPs	In GEF-7 strategy: <ul style="list-style-type: none"> • The Industrial Program includes introduction and use of BAT/BEP including, but not limited to, cement manufacturing, coal-fired power plants, various metallurgical processes, and waste incineration • The Agricultural Program addresses safe handling of agricultural plastics contaminated by POPs and of mercury-based agricultural chemicals
SC-8/16.1(f)	Development and strengthening of national legislation and regulations for meeting obligations with regard to POPs listed in the annexes to the convention	In GEF-7 strategy, the Industrial Program addresses facilitation of enabling environments and strengthening of national legislation and regulatory capacity for meeting obligations with regard to POPs, mercury, and other chemicals listed in the chemicals and waste conventions, including the removal of barriers to market access of manufacturing of products containing GEF-relevant chemicals, introduction of alternatives, and reduction of production of pure chemicals using sustainable/green chemistry approaches and that promote a shift to a circular economy and support detoxifying products and material supply chains
SC-6/20.4(f)	Use of BAT for new sources in categories listed in Part II of Annex C of the convention as soon as practicable but no later than four years after the entry into force of the convention for a party	Addressed under GEF-6 strategy Program 1 without specific focus on new sources and time deadlines
SC-5/23.6	Provide funding to parties to enable them to implement BAT/BEP to support reduction or elimination of unintentional releases of POPs	Specifically addressed under GEF-6 strategy Program 3
Article 7: Implementation plans		
SC-10-16.2(a) SC-8/16.1(g)	Review and updating of national implementation plans, including as appropriate their initial development	<ul style="list-style-type: none"> • Included under GEF-8 strategy Objective 1 • In GEF-7 strategy, Enabling Activities Program includes support to national implementation plans and their updates, as well as support to Minamata initial assessments and artisanal and small-scale gold mining national action plans

Decision	Guidance topic	Coverage in GEF focal area strategy
SC-6/20.3	Support eligible parties to the convention in their efforts to develop a plan for implementation of their obligations under the convention and to review and update, as appropriate, this implementation plan on a periodic basis	Specifically addressed under GEF-6 strategy Program 2
SC-5/23.10	Give priority to countries that have not yet received funding for implementation of activities contained in their national implementation plans	Not addressed
Article 8: Listing of chemicals in Annexes A, B and C		
SC-10-16.1(c)	Environmentally sound management and disposal of newly listed POPs with a focus on brominated flame retardants, fluorinated POPs, and chlorinated paraffins	Specifically addressed under GEF-8 strategy Objective 2
SC-8/16.1(a)	Development and deployment of products, methods, and strategies as alternatives to POPs	In GEF-7 strategy: <ul style="list-style-type: none"> • The Industrial Program specifically addresses sustainable chemistry/eco-design/strategies encompassing the entire life cycle of chemicals, as well as phasing out manufacturing of pure chemicals and introduction of alternatives in the products with preference to nontoxic chemicals • The Agricultural Program stipulates support to investments for introduction of alternatives with preference to nonchemical means
SC-6/20.4(c)	Elimination or restriction of the production and use of newly listed POPs	Specifically addressed under GEF-6 strategy Program 3
SC-5/23.4	Support activities in respect of the newly listed chemicals and invite other international financial institutions to do so	Specifically addressed under GEF-6 strategy Program 3
Article 12: Technical assistance		
SC-5/23.11	Provide funds necessary to facilitate the technical assistance and technology transfer to be provided to developing country parties and parties with economies in transition	Specifically addressed under GEF-6 strategy Program 5
SC-6/20.6	Consider proposals that may be developed by nominated Stockholm Convention centers and prioritize support to centers in developing countries and countries with economies in transition	Addressed under Annex I of GEF-6 strategy without geographical focus
SC-5/23.7	Provide financial support to enable regional centers to implement their work plans	Addressed under Annex I of GEF-6 strategy without geographical focus
SC-8/16.2	Continue to support chemicals and waste focal area and, if appropriate, its work on integrated programming for synergy in implementing the convention and contributing to global efforts to attain chemicals and waste-related Sustainable Development Goals	GEF-7 strategy includes support for Cities Impact Program and Food Systems Impact Program

Decision	Guidance topic	Coverage in GEF focal area strategy
SC-10/16.2(b)	Development and strengthening of national legislation and regulations for meeting obligations with regard to POPs listed in the annexes to the convention	Generally addressed under GEF-8 strategy Objective 1 (without focus on POPs)
SC-9/15.2	Continue to support particular projects that will help in addressing the problem of plastic waste, including marine plastic litter and microplastics	<ul style="list-style-type: none"> Specifically addressed under Sustainable Cities Integrated Program in GEF-8 strategy Specifically addressed under Circular Solutions to Plastic Pollution Integrated Program in GEF-8 strategy

Source: COP Decisions on Financial Mechanism; GEF Secretariat 2014, 2018, 2022.

Note: BAT/BEP = best available techniques and best environmental practices; DDT = dichlorodiphenyltrichloroethane; PCBs = polychlorinated biphenyls; POPs = persistent organic pollutants.

Table D.2 Minamata Convention on Mercury

Guidance reference	Guidance topic	Coverage in GEF focal area strategy
Priority areas		
III.7	<ul style="list-style-type: none"> Enabling activities Activities to implement the provisions of the convention, affording priority to those that <ul style="list-style-type: none"> Relate to legally binding obligations Facilitate early implementation on entry into force of the convention for a party Allow for reduction in mercury emissions and releases and address the health and environmental impacts of mercury 	<ul style="list-style-type: none"> GEF-6 strategy Program 4 GEF-7 strategy Programs 1-3 GEF-8 strategy Objectives 1-3
Indicative list of categories of activities that could receive support		
IV.B.2	<ul style="list-style-type: none"> Develop national plans setting out the measures for control of releases and emissions Capacity building for the development of strategies for identifying, assessing, and remediation of sites contaminated by mercury or mercury compounds 	<ul style="list-style-type: none"> GEF-6 strategy Program 4 GEF-7 strategy Programs 1-3 GEF-8 strategy Objectives 2 and 3

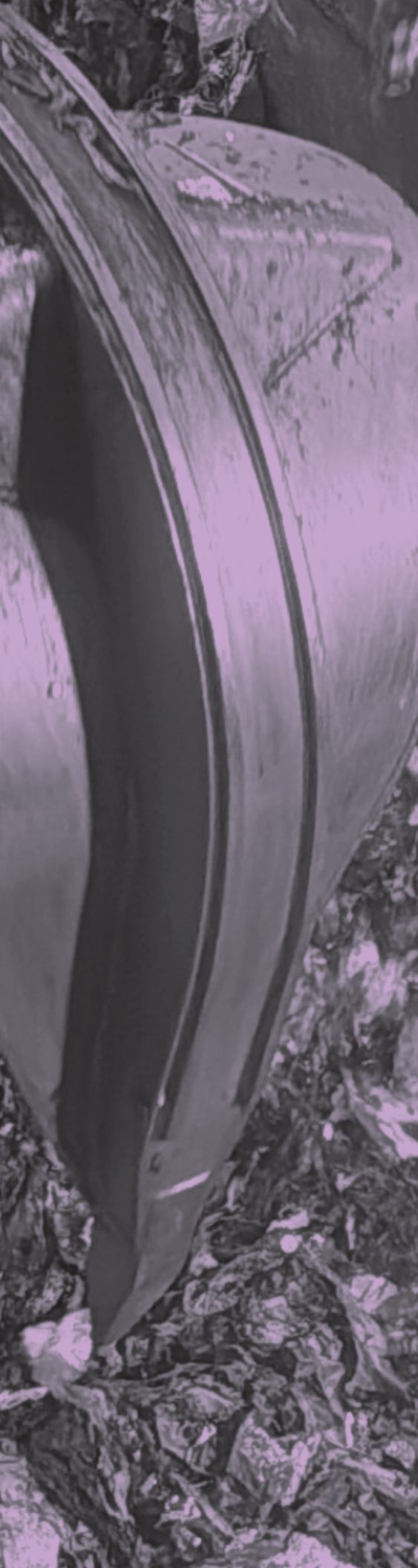
Sources: GEF Secretariat 2014, 2018, 2022; UNEP 2017.

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