

OP7 TECHNICAL GUIDANCE NOTE CHEMICALS, WASTE AND MERCURY MANAGEMENT

1. Background

The proliferation of harmful chemicals and waste is a growing concern for human health and well-being and the global environment. The world has witnessed a drastic increase in chemicals production and use, from an output of US\$ 171 billion in 1970 to over US\$ 4.1 trillion today (UNEP, 2012). *Many* chemicals, such as persistent organic pollutants (POPs) and mercury, can travel over long distances through air, migratory species and water currents. Exposure to POPs can lead to serious harmful health effects including certain cancers, birth defects, dysfunctional immune and reproductive systems, greater susceptibility to disease and damages to the central and peripheral nervous systems (Stockholm Convention, 2017).

Plastics have permeated every facet of human life, with the current production and consumption pattern of plastics driving the dramatic increase of plastic waste around the world. By 2015 the world produced 7.8 billion tonnes of plastic — more than one tonne of plastic for every person alive today.¹ The current linear model of ‘take, make, use, and dispose’ is highly costly in environmental, economic and health terms. Plastic waste pollutes our freshwater systems, through disintegrated plastic particles smaller than five millimetres, known as microplastics, and is transported through sewage, rivers and floodwaters.

According to UNEP’s Global Mercury Assessment 2013, the total anthropogenic emissions of mercury to the atmosphere in 2010 are estimated at 1960 tonnes. Annual emissions from artisanal and small scale gold mining (ASGM) are estimated at 727 tonnes, making this the largest sector accounting for more than 35% of total anthropogenic emissions.² **About 15 million miners use mercury to extract gold with little or no protection.**

Global conventions and frameworks related to chemicals management recognize the importance of working with poor and vulnerable communities. The Stockholm Convention on Persistent Organic Pollutants was adopted in May 2001 and entered into force in May 2004. The Minamata Convention on mercury is a global treaty agreed in 2013 to protect human health and the environment from the adverse effects of mercury.

¹ Ritchie H. and Roser M, Plastic Pollution – Our World in Data, September 2018, available at <https://ourworldindata.org/plastic-pollution>

² UNEP. 2013. Global Mercury Assessment 2013: Sources, Emissions, Releases and Environmental Transport. UNEP Chemicals Branch, Geneva, Switzerland

SGP supports the implementation of the Stockholm Convention and the Minamata Convention at the community level to contribute to achieving GEF's mandate of protecting the global environment. The implementation of the conventions remains to be strengthened. The barriers of implementation includes: 1) lack of policy and market enabling environment; 2) low awareness, knowledge and technical capacity; 3) lack of alternatives to the chemicals and mercury used. In GEF-7, SGP will focus its effort on reducing and removing these barriers, and promoting community-based innovations and practices to address chemicals, waste and mercury issues.

SGP applies a bottom-up approach and works in partnership with civil society organizations, governments, private companies, academics, international donors and other stakeholders. Actions taken on the ground by local communities often act as catalysts to compel coordination among other actors at national or regional scale. Local communities can play a key role in advocating for better waste management and environmental protection, often generating the momentum for policy makers and decision makers to tackle the issues.

2. Objectives and Strategic Programming

The objectives of chemicals, waste and mercury management focal area will support the overall objective of SGP: "To promote and support innovative and scalable initiatives, and foster multistakeholder partnerships at the local level to tackle global environmental issues." SGP will aim to demonstrate, deploy and transfer innovative community-based tools and approaches, with support from sound chemicals and waste management platforms. Under this the SGP will focus its support towards communities in the forefront of threats related to chemicals and waste either as users or consumers. Activities will include support for innovative, affordable and practical solutions to chemicals and waste management in joint effort with partners including with government agencies, research institutions, private sector and international agencies. In GEF-7, SGP will focus on the following four strategic programs (SPs) in chemicals, waste and mercury management focal area.

SP 1: ASGM mercury management

This strategic program is implemented through a global innovation program on ASGM and mercury management. SGP will support 2-3 community projects on ASGM in 10-12 country programs, including eight GOLD participating countries and 2-4 active SGP country programs during 2018-2020, in collaboration with GEF ASGM larger initiatives, which may use SGP as a delivery mechanism to support local community activities in ASGM. Grant-making activities will include:

- Pilot and test mercury free technologies and innovation in artisanal gold mining;
- Reuse/recycle mercury to reduce emissions in ASGM
- Training and demonstrations to miner communities in precautionary measures to reduce negative health effects
- Formalization of local miners for better management
- Awareness and knowledge sharing to facilitate cross-community learning.

SP 2: Plastics, solid waste management and circular economy

SGP will support local communities and grassroots solutions contributing to the implementation of the plastics management and circular economy by providing circular solutions to plastic waste problems through community-based actions to “reduce, reuse and recycle” plastics, known as “3Rs” ranking by the priority of actions. Priorities will be given to the following types of community innovations and practices:

- Material engineering and product design to promote 3Rs;
- Consumer use and behavior shift due to campaigns, awareness raising and capacity development;
- Waste collection and management to avoid open burning of solid waste.

SP 3: Chemicals in sustainable agriculture

This strategic program will be implemented in coordination with the Strategic Initiative “Sustainable Agriculture and Fisheries.” Activities will include:

- The production and use of organic manure, including organic waste collection and composting to reduce the use of chemical fertilizer;
- Production and application of organic and natural pesticides to replace the use of pesticide
- Innovation and technologies to reduce pesticides use in agriculture

SP 4: Local to global coalitions on chemicals, waste and mercury management

SGP provides community-based experiences and lessons learnt to global development community. SGP works with European Environmental Bureau’s Zero Mercury Working Group and the International POPs Elimination Network to develop and strengthen local to global coalitions on chemicals, waste and mercury management to ensure actions at local, national and global level are connected, coordinated and mutually re-enforcing.

Two global grants have been supported to implement this strategic program, through two international NGOs, i.e. International POPs Elimination Network and Zero Mercury Working Group of European Environment Bureau. The program will focus on capacity development through small scale micro projects to build local capacity, training and networking to link local communities and civil society organizations with international NGOs.

3. Results measurement and alignment with GEF and larger frameworks

SGP country programs should develop and implement country program strategies in alignment with the strategic programs under this focal area and Table 1 of project results below. Projects should be developed, implemented and followed up with monitoring and results collection to contribute to core indicator of GEF.

GEF Core Indicator 9 is “Reduction, disposal/destruction, phase out, elimination and avoidance of chemicals of global concern and their waste in the environment and in processes, materials, and

products (metric tons of toxic chemicals reduced).” SGP will support contribution to the achievement of this indicator through community demonstration projects.

Based on SGP’s 25 years of community experiences, it will be hard for communities to measure and report direct POPs or mercury reduced by SGP project activities. A proxy indicator of “POP and mercury contained materials or products removed/disposed” will be adopted. To help community projects to report on the results, proxy sub-indicators may include: 1) solid waste avoided open burning; 2) amount of mercury contained products reduced; 3) e-waste collected and disposed; 4) chemicals or pesticides avoided.

Table 1. Chemicals, Waste and Mercury Focal Area Results Framework

Project Objective: <i>To promote and support innovative and scalable initiatives, and foster multistakeholder partnerships at the local level to tackle global environmental issues in priority landscapes and seascapes</i>						
Project Components	Component Type	Project Outcomes	Project Outputs	Trust Fund	(in \$)	
Local to global coalitions for chemicals and waste management	Technical assistance	Innovative community-based tools and approaches demonstrated, deployed and transferred, with support from sound chemicals and waste management platforms.	At least 300 tons of POP and mercury contained materials and products removed/disposed At least 2 local to global coalitions and networks strengthened (e.g. IPEN and Zero Mercury Working Group of European Environment Bureau GOLD) program Awareness and outreach strategy for sound chemicals, waste management and mercury implemented in at least 50 SGP countries.	GEFTF	5,848,477	6,106,000

4. Stakeholders and Partnerships

Communities alone cannot address the chemicals, waste and mercury management challenge without a wholistic approach involving all stakeholders from citizens, to governments to private sectors. Chemicals, waste and mercury management needs to be integrated on local, national, and international levels, both for policy and implementation with all key stakeholders’ participation. Partnering with governments, private sectors, donors, academics, civil society organizations and all key stakeholders is key to the success of SGP.

In GEF-7, SGP will actively seek partnerships at all levels. At the global level, SGP will work with GEF GOLD program, UNEP, UNDP and others to ensure linkages and synergies of project activities in the field, and

facilitate sharing and learning. SGP will continue working with IPEN and Zero Mercury Working Group to promote local to global coalitions.

5. Risks management, knowledge management and innovation

It should be noted that many projects in chemicals, waste and mercury projects are led by women, youth and children and disabled people. While we recognize the importance to engage most vulnerable and marginalized groups, it is also concerning to point out that waste management, especially informal waste picking and sorting, is often undertaken by vulnerable people who cannot find more profitable, cleaner and respectable jobs. Informal waste management jobs are considered as “dirty” jobs, and only the poorest and most marginalized are engaged in this sector. Mercury use in artisanal gold mining poses a serious direct health risk to the communities around it. Learning and knowledge sharing are critical to mitigate such health risks, because with some basic precautionary measures, their negative impact can be reduced.

SGP plays a role in sharing and exchange of community knowledge and experience on innovative solutions from the ground up. Due to its nature and in line with its mandate, SGP not only contributes to actions that result in direct global environmental benefits, but also promotes innovation, testing and demonstration approaches, modalities, and management processes that through upscaling, replication and mainstreaming will lead to direct global environmental benefits. The latter aspect is especially relevant in the solid and plastic waste management because of the vast extent of the problem in comparison with the small scope of individual community projects – as the results achieved by these local plastic waste management projects can be amplified through the creation of knowledge, demonstration of solutions, and exchange of experience within a larger framework for action including policy and regulation. SGP's global network is a key for promoting south-south exchanges of best practices from one country to another. In addition, SGP collaborates with regional projects or initiatives, and by linking communities among themselves for knowledge sharing and exchanges.

Resources for further reading

1. GEF-7 programming directions
2. Community-based chemicals and waste management: experiences from GEF Small Grants Programme
3. Plastics and circular economy: community solutions (to be published)
4. SGP chemicals, waste and mercury training module