**The GEF Small Grants Programme**

**TECHNICAL GUIDANCE NOTE**

**Chemicals and Waste Focal Area**

**Introduction**

Chemicals are an integral part of daily life in today’s world. There is hardly any industry where chemicals are not used and there is no single economic sector where chemicals do not play an important role. The OECD’s Environmental Outlook to 2050 notes that while annual global chemical sales doubled over the period 2000 to 2009, OECD’s share decreased from 77% to 63% and the share of the BRICS countries (Brazil, Russia, India, Indonesia, China, and South Africa) increased from 13% to 28%. Studies, projecting trends to 2050, forecast that global chemical sales will grow about 3% per year to 2050.[[1]](#footnote-1)

The Global Environmental Outlook (UNEP GEO-5) pointed out the overwhelming majority of impacts from unsafe chemical use and unsound waste disposal, including death, impairment of health and ecosystem degradation, occur in situations of poverty. Increased risks of exposure to toxic and hazardous chemicals and wastes predominantly affect the poor, who routinely face such risks because of their occupation, poor living standards and lack of knowledge about the detrimental impacts of exposure to these chemicals and wastes. Many of the poor enter the informal sector of the economy where they may encounter new kinds of toxic hazards such as electronic and electrical waste (e-waste). Children are particularly susceptible to the negative health impacts of chemicals due to their rapid growth and development and greater exposure relative to body weight.[[2]](#footnote-2)

Global conventions and frameworks related to chemicals management recognizes the importance to work with poor and vulnerable communities. Strategic Approach to International Chemicals Management (SAICM) states in paragraph 9.a:

“Governance is an important issue that needs to be addressed through a multi-sector and multi-stakeholder approach in pursuing the sound management of chemicals. There is therefore a need to recognize… in many countries some stakeholders, particularly women and indigenous communities, still do not participate in all aspects of decision-making related to the sound management of chemicals, a situation which needs to be addressed.”

Despite the fundamental needs of poor and vulnerable communities and obligations under global conventions and policy frameworks, global efforts have been inadequate to address the challenges at the community level due to the following implementation gaps:

* ***Low community awareness, knowledge and technical capacity*** with chemicals, heavy metals and wastes. The impacts of chemicals and heavy metals on human and ecosystems are not always obvious to local communities, with low recognition until scientific or medical tests are done, which poor and vulnerable communities lack.
* ***Lack of national and local policies, standards and procedures in chemicals, heavy metals and handling of wastes.*** Even in some countries or locations where such policies exist, the implementation remains weak due to the lack of capacity and financial resources.
* ***Lack of alternative livelihoods or environmentally friendly alternatives to chemicals and heavy metals in use.*** Communities sometimes use harmful chemicals and heavy metals for their economic activities, and choose to take negative effects because they depend on these harmful substances for their economic returns. The use of pesticides for crops, mercury in artisanal gold mining, and handling of e-waste are examples of such behaviors.
* ***International trade of e-waste*** has shifted the burden to developing countries. The e-waste is then handled mostly by the poorest people in the country. In the electronic waste dump site of the world, Guiyu, China, poor and rural workers dissemble and recycle valuable parts or elements of e-waste, with the lowest health protection and labor standards.[[3]](#footnote-3)

**Goal**

To prevent the exposure of humans and the environment to harmful chemicals and waste, including POPs, mercury, other harmful chemicals and heavy metals, through community based approach to prevent, reduce or eliminate the production, use, consumption and emissions/releases of these harmful substances.

**STRATEGIC Approach**

SGP is a special window of GEF to provide financial support to civil society organizations (CSOs) and community-based organizations (CBOs) to identify, implement and upscale environmentally sound management practices at local, national and global levels. SGP structural steps to achieve transformational changes include:

* ***Innovation and piloting/testing of small-scale practices at the community level***. SGP interventions start from small at the community level. Communities with a problem approach SGP with proposed interventions, and often innovative ideas come from these communities themselves facing the fundamental threats to their health and livelihoods. The advantages of such small-scale piloting and testing include: contextual design/implementation of project activities; flexibility; ownership and social support. This approach ensures high ownership of projects by communities, which leads to high sustainability, higher than GEF’s larger projects.[[4]](#footnote-4)
* ***SGP’s programmatic approach ensures in***-***system replication and upscaling of good practices.*** As the longest programme of SGP, it has been the true practitioner of a coherent programmatic approach to global environmental problems. Over the years, country programmes accumulate experiences and develop contextual approach to upscaling, e.g. honey production in Mexico and eco-tourism in Coast Rica.
* ***Strategic global connectivity***. SGP opens a unique window for communities and civil society organizations to provide direct inputs and experiences to international policy development and programming processes. In this sense, SGP’s communities are not merely individual stand-alones, but in fact active “global” communities. SGP’s global network provide an effective mechanism to bring local practices to global replication/upscaling. For example, the 2007 CNN Hero project (Cuba waste project) has gained such a global recognition among SGP country programs that the practices have been widely replicated, resulting in solid waste management of more than 300,000 tons during GEF-4. SGP’s practices have been widely recognized globally by numerous international awards.

**THEMATIC AREAS AND INDICATIVE ACTIVITIES**

The GEF SGP chemicals portfolio focused its activities on pesticide management in agriculture and organic farming; reduction of chemicals usage and contamination; avoidance of open burning of solid waste; capacity development, awareness raising and knowledge sharing. In GEF-5, the focal area expanded to cover other chemicals beyond the Stockholm Convention and heavy metals. The trend of global chemicals management is to consolidate and coordinate all existing chemicals, waste and heavy metals efforts. Hence the coverage of chemicals and waste can be further expanded. To address the current implementation gaps of chemicals and waste management, SGP will undertake activities in four thematic areas.

**Thematic Area 1: Pesticide Management**

According to the World Health Organisation (WHO) acute pesticide poisoning affects three million people and account for 20,000 unintentional deaths each year. However, estimates range from one million to 41 million people affected every year, and the data could be under-estimated due to lack of data. In many communities and nations, those living in poverty, women and children continue to be disproportionately exposed to pesticides, making this an issue of fairness and environmental justice.[[5]](#footnote-5) Between 2005 and 2020, the accumulated cost of illness and injury linked to pesticides in small scale farming in sub-Saharan Africa could reach USD $90 billion.[[6]](#footnote-6)

Under this thematic area, SGP may focus its work on packing, storage and environmental disposal of obsolete pesticide, promotion of organic farming and certification, and the development of technologies & alternatives to pesticides (e.g. traditional knowledge). Proposed activities may include:

* Introduction of alternatives to DDT for vector control including approaches to improve their safe and rational use for public health
* Introduction of non-chemical alternatives
* Integrated pesticide management including in the context of food security
* Design of products and processes that minimize the use and generation of hazardous substances and waste

**Thematic Area 2: Waste Management**

Rapid changes in technology, changes in media (tapes, software, MP3), falling prices, and [planned obsolescence](http://en.wikipedia.org/wiki/Planned_obsolescence) have resulted in a fast-growing surplus of electronic waste (e-waste) around the globe. E-waste is the fastest growing waste stream. In the United States, an estimated 70% of heavy metals in landfills come from discarded electronics. Such trend is spreading to the rest of the world. According to a report by UNEP titled, "Recycling - from E-Waste to Resources," the amount of e-waste being produced - including mobile phones and computers - could rise by as much as 500 percent over the next decade in some countries, such as India. The United States is the world leader in producing electronic waste, tossing away about 3 million tons each year. China already produces about 2.3 million tons (2010 estimate) domestically, second only to the United States. And, despite having banned e-waste imports, China remains a major e-waste dumping ground for developed countries. As “sustainable cities” has emerged as an important issue, waste management will be of particular importance to sustainable development, as the cities are the powerful generators of garbage and wastes. With high density of population, sustainable chemicals and waste management will be critical to the environment and health of urban environment.

Community-based waste management may focus on domestic solid waste, medical waste, e-waste and plastics. Proposed activities may include:

* Promote sound solid waste management to avoid public open burning through alternative environmentally sound waste disposal and management
* Develop or establish community-based waste sorting, collection, recycling or environmentally sound waste management
* Develop and implement integrated waste management plan at the community level generating livelihoods, health and other benefits
* Promote awareness-raising, knowledge and technical capacity for waste management

**Thematic Area 3: Heavy metals and other chemicals**

Developing countries share a disproportionately high burden of coping with the impacts of harmful chemicals, heavy metals and wastes, especially the poor and vulnerable communities suffer most from these negative impacts. Widely under-reported, artisanal gold mining is one of the most significant sources of mercury releases into the global environment. Most artisanal gold miners are from socially and economically marginalized communities, and turn to mining in order to escape extreme poverty, unemployment and landlessness. The United Nations Industrial Development Organization (UNIDO) estimates that mercury amalgamation from this kind of gold mining results in the release of an estimated 1000 tons of mercury per year, which constitutes about 30 per cent of the world's anthropogenic mercury emissions.[[7]](#footnote-7) It is estimated that there are between 10 and 15 million artisanal and small scale gold miners worldwide, including 4.5 million women and 600,000 children. According to UNIDO, as much as 95 percent of all mercury used in artisanal gold mining is released into the environment, constituting a danger on all fronts - economic, environmental and human health.[[8]](#footnote-8)

Proposed activities under this thematic area may include the following:

* Promote sound solid waste management to avoid public open burning through alternative environmentally sound waste disposal and management
* Develop or establish community-based waste sorting, collection, recycling or environmentally sound waste management (e.g. sustainable cities)
* Develop and implement integrated waste management plan at the community level generating livelihoods, health and other benefits
* Promote awareness-raising, knowledge and technical capacity for waste management

**Thematic Area 4: Coalitions and Networks**

In overall chemicals management, building on the successes in some SGP country programs in establishing the certification system of organic biodiversity products (such as the organic honey-producing business certification supported by SGP Mexico), a priority area would be to establish systems of local certification of producers and/or their products through promotion of organic production processes, the development and implementation local certification manual/guidelines, networking of producers, as well as strategic linkages and agreements between producers and consumers. s. Work will also involve advocacy for national government policies that will influence markets including chemicals import and export. Activities under this thematic area may include:

* Systems of local certification of producers and/or their products
* Development and implementation of local certification manual/guidelines
* Networking of producers
* Strategic linkages and agreements between producers and consumers
* Advocacy for national policies that will influence chemicals import and export.

**POTENTIAL PARTNERSHIPS**

As this focal area is one of the newest focal areas with coverage changes over the years, SGP is still in the stage of accumulating knowledge and experiences to identify good practices for upscaling. SGP’s priority areas for testing and innovation include electronic waste management, mercury management, lead paint, plastics, and chemicals in products. Recognizing its being relatively new in these areas, SGP will work with partners, such as International POPs Elimination Network (IPEN), World Health Organization (WHO), UN Food and Agriculture Organization (FAO), Blacksmith Institute and GEF full-sized projects as well as other partners to develop, implement and monitor/evaluate innovative and experimental projects. Experiences and lessons learnt from partners’ work will be systematically shared and disseminated to inspire community innovation.

In selected countries, SGP will work with government agencies and key partners to strengthen import-export policies, rules/procedures and restrictions. Where successful alternatives are identified, SGP will promote national and global learning and sharing through conferences, networks, and media coverage for replication and upscaling.

**Outcomes, indicators AND RESULTS Measurement**

The global results framework and indicators is included as Annex 1 to this document. A comprehensive SGP training module on chemicals and waste is available: [www.sgp-pops.org](http://www.sgp-pops.org).

| **Project Objective: To support the creation of global environmental benefits and the safeguarding of the global environment through community and local solutions that complement and add value to national and global level action** | | | | | |
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| **Component** | **Outcome** | **Indicators** | **Target** | **Verification Means** | **Assumptions** |
| *4. Local to Global Chemical Management Coalitions* | 4.1 Innovative community-based tools and approaches demonstrated, deployed and transferred, with support from newly organized or existing coalitions in at least 20 countries for managing harmful chemicals and waste in a sound manner | Number of community-based tools/approaches to avoid and reduce chemicals demonstrated, deployed and transferred  Number of coalitions and networks established or strengthened | At least 3 innovative tools/approaches demonstrated, deployed and transferred  At least one national coalition or network for chemicals management established or strengthened in lead countries  At least three coalitions or networks established at the regional or global levels to advocate for safe chemicals management | ACR  Annual Monitoring Reports (AMR)  Global Database  Case studies and portfolio review  Monitoring and oversight by UNDP-CO, NSC and CPMT | Communities and CSOs have innovative and implementation capacity  Technical support and funding resources available for national, regional and global networking for the formation of coalitions |

1. UNEP Global Chemicals Outlook 2012 [↑](#footnote-ref-1)
2. Sheffield, P.E. and Landrigan, P.J. 2011. Global climate change and children’s health: threats and strategies for prevention. *Environmental Health Perspectives* 119(3), 291–298 [↑](#footnote-ref-2)
3. International Labour Office. 2012. *The Global Impact of E-waste: Addressing the Challenge*. [↑](#footnote-ref-3)
4. GEF Evaluation Office. 2007. The Joint Evaluation of GEF Small Grants Programme. [↑](#footnote-ref-4)
5. Pesticide Action Network. 2010. *Communities in Peril: Global report on health impacts of pesticide use in agriculture*. [↑](#footnote-ref-5)
6. UNEP Global Chemicals Outlook 2012 [↑](#footnote-ref-6)
7. Veiga, M.M., Baker, R. 2004. *Protocols for Environmental and Health Assessment of Mercury Released by Artisanal and Small Scale Miners, Report to the Global Mercury Project: Removal of Barriers to Introduction of Cleaner Artisanal Gold Mining and Extraction Technologies*. [↑](#footnote-ref-7)
8. Veiga, M.M., et al. 2005. *Pilot Project for the Reduction of Mercury Contamination Resulting From Artisanal Gold Mining Fields in the Manica District of Mozambique*. [↑](#footnote-ref-8)