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**STRATEGY ON SOUND CHEMICALS MANAGEMENT FOR THE
5TH REPLENISHMENT PERIOD OF THE
GLOBAL ENVIRONMENT FACILITY**

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EXECUTIVE SUMMARY

1. Chemicals play an important role in human life and economic development and prosperity. Acknowledgement of the essential role of chemicals and their contributions to improved living standards, however, needs to be balanced with recognition of the potential adverse impacts of chemicals on the environment and human health. The diversity and potential consequences of such impacts, combined with the limited capacity in developing countries and countries with economies in transition to manage these impacts, makes sound chemicals management a key crosscutting issue for sustainable development.
2. The goal of the GEF's chemicals program is "to promote the sound management of chemicals throughout their life-cycle in ways that lead to the minimization of significant adverse effects on human health and the global environment." This goal is aligned with other internationally agreed goals and objectives, including those of the Strategic Approach to International Chemicals Management (SAICM), the global chemicals strategy that provides a voluntary policy framework for achieving such a goal.
3. GEF-5 resources dedicated to Sound Chemicals Management activities are intended to support synergistic interventions that generate multi-focal area benefits. This could be done through supporting projects that significantly contribute and produce positive impacts towards the fulfillment of obligations in relevant conventions (including Stockholm Convention, Convention on Biological Diversity, Convention to Combat Desertification, and others). In addition, the resources would be used to assist countries address chemicals management in an integrated manner in their national planning, and help mobilize other sources of finance for projects and programs for sound chemicals management to achieve global benefits. Activities should be complementary to those related to the Quick Start Program (QSP) and would include emerging issues as identified by the Second International Conference on Chemicals Management (ICCM2.)

1 SCOPE OF THE PROBLEM

4. The use of chemicals by all humans and modern society's increasing reliance on chemicals for virtually all manufacturing processes make chemicals production one of the major and most globalized sectors of the world economy. Chemicals use continues to rise as chemicals permeate all sectors of human activity. As stated in the 2006 Dubai Declaration, "Progress in chemicals management has not, however, been sufficient globally and the environment worldwide continues to suffer from air, water and land contamination, impairing the health and welfare of millions. The need to take concerted action is further accentuated by a wide range of chemical safety concerns at the international level, including a lack of capacity for managing chemicals in developing countries and countries with economies in transition, dependency on pesticides in agriculture, exposure of workers to harmful chemicals and concern about the long-term effects of chemicals on both human health and the environment."

5. While the economies of many developing countries are largely import dependent, and most chemicals are imported from developed countries and parts of Asia, production of many chemicals is shifting to developing countries and countries with economies in transition.

6. At the same time, developing countries and countries with economies in transition generally lack capacity and regulatory and institutional frameworks for sound management of chemicals and stakeholders fail to understand the risks associated with hazardous chemicals in their life cycle. This is usually compounded by weak national infrastructure and institutions, weak or non-existent regulatory frameworks, and fragmented chemicals laws that are not sufficiently enforced. Inadequate databases on chemicals classification, import and export in the countries and a general lack of information and awareness on toxic chemicals in articles and products are prevalent. Most personnel in charge of chemicals handling generally lack specialized knowledge of chemicals or chemistry. This increases the risks and the challenges of managing chemicals safely in the developing world. For example, World Health Organization (WHO) estimates that about 3% of exposed agricultural workers suffer from an episode of acute pesticide poisoning every year. The overwhelming majority of fatalities, including suicides, caused by highly toxic chemicals, take place in developing countries.

7. Adverse health effects of chemicals include inter-alia acute poisonings, birth defects, neuro-developmental disorders, reproductive/developmental disorders, and cancer. While there is extensive evidence of the adverse effects of chemicals on human health and the environment, there are also large data gaps. Of the tens of thousands of chemicals on the market, only a fraction has been thoroughly evaluated to determine their effects on human health and the environment. The data gaps on chemicals risks were quantified in several studies in the late 1990s. A report by the European Chemicals Bureau indicated that of approximately 2,500 high-production-volume chemicals, only 14 % had sufficient data to comply with the basic requirements in the European Union's Dangerous Substances Directive; 65 % had incomplete data; and 21 % had no data at all. In another study, the United States Environmental protection Agency (US EPA) found that of approximately 3,000 substances sold in quantities above 1 million pounds per year, only 7 % had the minimum data considered to be necessary by the OECD, and 43 % of the substances had no data at all. While there have been some improvements in data availability over the past decade, the remaining lack of information illustrate the magnitude of the problem.

8. Acute chemical poisoning data are highly variable and depend on the surveillance infrastructure in place in individual countries or regions. For example, in OECD countries with poison control networks, data may be quite complete and trends can be estimated over months or years. In the U.S., a network of 61 federally-funded poison centers report occupational and non-occupational poisoning to the National Poisoning Data System. The ability to track such poisoning is much less comprehensive in both emerging economies and less developed countries. Nonetheless, available data indicate that acute poisonings are a significant source of illness and death in developing countries and countries with economies in transition. Further, chronic

effects of exposure to toxic chemicals most often go unreported, particularly in the developing world.

9. In addition to their human health effects, chemicals are also known to have a wide range of environmental and ecological impacts affecting:

- *Atmosphere.* Chemicals affect all-important aspects of the atmosphere: they can act as air pollutants; contribute to acid rain formation; and can act as greenhouse gases and ozone depleting substances (ODS). Chemicals can be transported through the atmosphere at local, regional, or global scales.
- *Water.* Chemical contamination of water is a worldwide problem that has been documented extensively. Impacts include cancers and endocrine disruption in aquatic animals; loss of invertebrate biodiversity; and other effects.
- *Soil.* Chemicals contaminate soil in rural, urban, industrial and natural settings. The sources of contamination may include atmospheric deposition, dumping of wastes, spills from industrial or waste facilities, mining activities, contaminated water, or pesticides. Impacts can include uptake by crops, depletion of soil resources, and direct human exposures.
- *Biodiversity.* Persistent and bioaccumulative chemicals are widespread contaminants in wildlife, especially those that are high on the food chain. Some of these chemicals cause cancers, immune dysfunction, and reproductive disorders in wildlife. These effects can contribute to species extinction. Pesticides can also adversely impact pollinator and other beneficial insect populations, thereby impacting food security.

2 ECONOMIC BENEFITS OF SOUND CHEMICALS MANAGEMENT

10. Chemicals can have significant positive effects on both human health and the environment if well managed. Sound chemicals management at the national level brings many global economic, social and environmental benefits. These measures can reduce harmful exposures while providing economic benefits. The economic costs of harm to human health and the environment (and, conversely, the economic benefits of protecting human health and the environment) are enormous. It is worth noting, however, that the economic benefits of sound chemicals management are not simply the flip side of the economic costs of the failure to manage chemicals soundly. In addition to avoiding costs from health and environmental damage, sound chemicals management can create additional benefits of its own, such as improved production efficiency and competitiveness for businesses. The economic development benefits of sound chemicals management activities, including environmentally sustainable agriculture, have been well discussed. Debates about resource allocation frequently posit a trade-off between the economic gains associated with industrial development, on the one hand, and the economic costs of environmental regulation or clean up, on the other. What is lost in this debate is recognition that the failure to adopt sound chemicals management can impose large

economic costs and that conversely, sound chemicals management can yield significant economic benefits in terms of economic development, poverty reduction and reduced human health and environmental risks.

3 APPROACHES TO SOUND CHEMICALS MANAGEMENT

11. The sound management of chemicals places significant responsibilities on both governments and the private sector. Many nations have created competent authorities for managing chemicals. The private sector has established effective processes and practices for using chemicals appropriately and effectively managing them as emissions and wastes. However, the need for a broad and comprehensive approach to the sound management of chemicals will require recognition of the significant differences in capacities, authorities and commitments of the diversity of governments, institutions and industries that today manage chemicals. To carry out these responsibilities there exist a broad range of legal, professional and program instruments and approaches, which may be regulatory, economic, or technical, and which can be categorized by goal:

- *Controlling Chemical Pollution:* Pollution control activities include end of pipe solutions such as emission limits and chemical waste fees. These approaches frequently take a chemical-by-chemical or single environmental media approach.
- *Preventing Chemical Pollution:* In the 1990s, governments began to deploy policies that looked upstream to prevent pollution and reduce the use of toxics, rather than control downstream emissions or remediate contamination. These instruments include pollution prevention planning, chemical accident prevention and cleaner production assessments within the technical category, as well as economic instruments such as chemical use fees and taxes and chemical leasing. The launch of the United Nations Environment Programme (UNEP)/United Nations Industrial Development Organization (UNIDO) Cleaner Production Program was also a significant initiative in chemicals pollution prevention.
- *Remediating Contaminated Sites and Managing Waste Chemicals:* Instruments for the control of pollutants often are accompanied by technical and economic approaches for cleaning up contamination. Of major significance among this category are: emergency response and spill management programs, site clean-up programs, post clean-up management, and legacy chemical storage management and treatment. Specific examples include the United States “Superfund” program (which requires “responsible parties” to either perform remediation activities or reimburse the government for cleanups), the Global Environment Facility/World Bank/Food Agriculture Organization Africa Stockpiles Programme (ASP), and the OECD “Guiding Principles for Chemical Accident Prevention, Preparedness and Response,” intended to assist in the safe design and operation of chemical plants and to plan for response action in the event of accidents.
- *Managing Chemicals in Products:* Increasing attention is being paid to the issue of toxic substances in products or articles and their life cycles. Efforts to manage chemicals in

products or articles began to be developed during the 1990s in a variety of countries. These include instruments developed for product design, product declarations, eco-labeling, product standards and certifications, environmentally preferred product procurement policies and product stewardship and take-back programs within appropriate regulatory, voluntary, technical and product management frameworks.

- *Managing Chemical Information:* Individual countries and groups of nations have devised a variety of instruments for managing chemical information. These include pollutant Release and Transfer Registries (PRTRs), product ingredient registries, chemical hazard characterization and labeling systems, chemical manufacturing and use inventories, and systems for disclosing chemicals in the supply chain. A major international system for managing chemical information is the Globally Harmonized System of Classification and Labeling (GHS) of chemicals. Its goal is to ensure that information on physical hazards and toxicity from chemicals is made available during handling, transport and use.
- *Assessing and Promoting Safer Chemical Alternatives:* One obstacle to reducing the use of toxic chemicals is the perceived lack of effective safer alternatives. In assessing alternatives, issues include the functional requirements for various uses, cost, availability, and environmental health and safety considerations. Decision-making on chemicals of elevated concern and their alternatives tend to require extensive collection and analysis of information of chemical characteristics, including chemical screening and characterization. Assessment, characterization, and prioritization of chemicals are important for governments with limited budgets to target their resources effectively.
- *Generating Safer Chemicals:* In recent years, a new approach to the manufacture and use of chemicals has emerged. Green Chemistry, or Sustainable Chemistry, seeks to reduce risk by generating chemicals that are inherently safer, rather than looking at the potential downstream impacts of chemicals. While the greatest concentration of green chemistry activity is taking place in the developed nations, efforts are being made to cooperate with middle-income countries, developing countries and countries with economies in transition on green chemistry approaches. UNIDO's programs on chemical leasing as a business model promoting green chemistry include examples in Egypt, Russia and Mexico.

4 GLOBAL INITIATIVES ON SOUND CHEMICALS MANAGEMENT

12. The realization of the risks to human health and the environment posed by the unsafe production and use of chemicals has led nations to indicate their support for sound chemicals management globally. Calls for interventions and actions to tackle the problem have been well enunciated in global declarations and action plans since the concept of sound management of chemicals was first articulated in 1992 in *Agenda 21* (Chapter 19) of the United Nations Conference on Environment and Development (UNCED) and further emphasized at the 2002 World Summit on Sustainable Development as delineated in the Johannesburg Plan of Implementation (JPOI). Regional and international agreements on chemicals include the Stockholm Convention on Persistent Organic Pollutants and the Montreal Protocol, as well as the

Basel Convention, the Rotterdam Convention, the Kyoto Protocol, a variety of marine conventions focused on protection of the environment from toxic and hazardous wastes, and the International Labour Organization (ILO) chemicals conventions pertaining to worker safety. The adoption of the Strategic Approach to International Chemicals Management (SAICM) in 2006 was further intended to coordinate, facilitate and catalyze existing institutions and mechanisms with SAICM taking due account of instruments and processes that have been developed to date, and being flexible to deal with new ones without duplicating efforts.

5 INTEGRATION OF SOUND CHEMICALS MANAGEMENT WITH DEVELOPMENT STRATEGIES

13. Development assistance can be a crucial factor in the creation of national infrastructures for sound chemicals management in developing and transition countries. The international development community has made a clear commitment to integrating the sound management of chemicals into development strategies. However, to date this commitment has not been fulfilled and sound chemicals management is not sufficiently integrated across economic sectors and into national planning processes. Solutions to the disconnect between chemical safety and development must involve developing countries and countries with economies in transition along with donor countries. On the developing or transition country side, capacity building and increased partnership between environment, labor and health sectors may be helpful. On the donor country side, improved communication with recipients would be helpful to clearly inform them that sound chemicals management can be part of development assistance and is linked to accomplishing the Millennium Development Goals and sustainable development objectives. Donor supported actions can preserve country-driven priorities while helping to raise the profile of sound chemicals management and bolster efforts of environmental and health ministries to include chemicals management in sustainable development plans.

14. A number of obstacles have contributed to the failure to date to fully integrate sound chemicals management with national development strategies. These include the perception that chemicals management is strictly an environmental issue, not a public health and development issue; the insufficient data about occurrence and distribution of many chemicals and chemicals in products, gaps in communication among government agencies preparing applications for development assistance; a lack of coordination between various ministries with respect to chemicals management; and a heavy focus in public health assistance on curing infectious diseases, rather than preventing chemical-related diseases.

15. For many countries, the challenge of establishing a coherent, integrated chemicals management framework that coexists with broader national development policies and addresses local needs is still very much a work in progress. An integrated approach to sound chemicals management requires efforts to strengthen coordination, ensuring that contributions are complementary across relevant actors with respect to the various activities undertaken. Under an integrated scheme in the national context, ministries of agriculture, environment, health, industry, labour, science and technology, trade, mining, energy, and transport, customs authorities, and others, continue to carry out their own sectoral mandates, but their efforts are

coordinated to a reasonable degree to avoid conflicting policies, gaps, and unnecessary overlaps. An integrated approach also means involving ministries of finance, foreign affairs, justice or legal affairs, planning, etc., with a view to integrating chemicals management into development planning (“mainstreaming”). Approaching chemicals management from a holistic perspective also helps ensure that potential risks to health and environment are taken into account and that appropriate measures are put into place to manage and reduce those risks.

6 GEF LINKAGES AND SUPPORT FOR SOUND CHEMICALS MANAGEMENT

16. The goal of the GEF through its chemicals program is “to promote the sound management of chemicals throughout their life-cycle in ways that lead to the minimization of significant adverse effects on human health and the global environment.” In keeping with this goal, the ICCM2 in May 2009 urged the GEF “*to consider expanding its activities related to the sound management of chemicals to facilitate SAICM implementation, whilst respecting its responsibilities as the financial mechanism for the Stockholm Convention.*”

17. Consistent with the overall GEF chemicals goal, the sound chemicals management resources will maximize the delivery of global environmental benefits through pilot projects which integrate sound chemicals management into broader development initiatives. Such support will also benefit implementation of related conventions and agreements such as the Basel and Rotterdam Conventions.

18. The GEF, in keeping with its mandate, will support the SAICM priority objectives as outlined in the SAICM Global Plan of Action (GPA) that generate global environmental benefits. The GPA highlights persistent, bioaccumulative, and toxic substances, as well as persistent organic pollutants (POPs) and mercury as chemicals of particular concern. SAICM includes five main objectives related to:

- risk reduction;
- knowledge and information;
- governance;
- capacity building; and
- illegal international traffic

19. All these objectives, and particularly the risk reduction objective, have elements that allow for the generation of global environmental benefits, and have strong linkages and synergies with existing GEF programs related to POPs and ODS, international waters, and biodiversity, as described below. GEF interventions will seek to build enabling conditions for sound chemicals management including strengthened policy, legal and institutional and financial capacities within targeted countries and regions, particularly in the least developed countries and small island developing states.

20. The chemicals program has linkages with all other focal areas of the GEF, either because chemicals are a driver for ecosystem degradation and removal of chemicals reduces the stress on those ecosystems (e.g., with biological diversity, land degradation, or international waters), because interventions in one focal area can have co-benefits in the other (e.g., with climate change mitigation), or because interventions can be complementary (e.g., with international waters). Projects submitted under the SCM window will utilize linkages leading to potentially synergistic interventions that generate multi-focal area benefits. GEF-5 programs and objectives with the greatest potential for such linkages are the following:

- *Climate Change Mitigation:* The relationship of the climate change focal area to the chemicals program is multi-faceted, and includes co-benefits. Opportunities exist to maximize these co-benefits, for example between energy efficiency programs that reduce releases of POPs and persistent toxic substances. Linkages can also take the form of opportunities, for example to reduce lead in gasoline in the framework of transport programs. Projects that promote energy efficiency in buildings and industries will support the phase out of HCFCs where this is justified by consideration of greenhouse gas benefits.
- *Adaptation to Climate Change:* With respect to adaptation to climate change, chemicals management considerations come into play at various levels. Direct climate change impacts on chemicals include changes in their life-cycle and transport pathways. For instance, the extension of the habitats of pests under global climate change has to be taken into account when devising an integrated vector control strategy. Another example is flood control management to protect a particular coastal zone and affected community, where the risk of chemical spills would have to be addressed in developing contingency plans for natural disasters.
- *Land Degradation:* Linkages with sustainable land management are varied and could include interventions that reduce the reliance of local communities on POPs and other pesticides, or address the legacy of land degraded through historical pesticides abuse or obsolete pesticides spread over large areas. Programs that minimize slash and burn practices will have a beneficial impact on emissions of unintentionally produced POPs and greenhouse gases.
- *Biological Diversity:* Toxic substances including POPs are a threat to health, wildlife and biodiversity, and ultimately all projects under the chemicals program benefit the biodiversity focal area. The aquatic environment is both a sink for many chemicals and wastes containing chemicals, and a major pathway for exposure. Reducing releases to particular water bodies or terrestrial ecosystems contributes to biodiversity objectives. Many opportunities for promoting sound chemicals management exist within programs to mainstream biodiversity in production landscapes and seascapes, for example with agro-forestry, shade-grown coffee or cocoa, and forest certification schemes. Linkages can also be supported with marine protected areas, in cases for example where pesticides runoff is a significant stress for the resources under protection.

- *International Waters:* Water bodies, including river basins and transboundary lakes, can be dramatically affected by releases of toxic chemicals, including heavy metals and other contaminants, from nearby industries or municipalities. These releases can cause physical and chemical injury in places far removed from manufacture, use or even disposal. Additionally, solid wastes or debris, particularly plastics, from both land- and marine-based activities in fresh and marine waters pose serious health, environmental, economic, and aesthetic problems. In many oceans and fresh water systems, floating and submerged debris destroys habitats, impacts physically and chemically on biota, and impedes economic development. Poor waste management, illegal dumping, fishing practices, and poorly managed mineral resource extraction are some of the myriad of practices that can be mitigated through awareness raising, research, monitoring, policy development, and enforcement. Improving capacities for the sound management of chemicals, including addressing wastes, can identify and mitigate specific risks to international waters and help restore ecosystem functions and reverse biodiversity loss. To address these issues in an integrated manner, potential links with the Biodiversity and International Waters projects will be explored, specifically with the Areas Beyond National Jurisdiction (ABNJ) program. In addition, work taking place to implement the Global Plan of Action for the Protection of the Marine Environment from Land-Based Activities (GPA) can inform and guide GEF interventions at the national and regional levels.

21. Activities and work areas in sound chemicals management that could receive GEF incremental support because of their transboundary aspects include those related to technology transfer and pollution prevention; pesticides management; capacity building with regards to legislative and regulatory frameworks and enforcement; adaptation with regards to chemicals; protected areas; contaminated sites; heavy metals; waste minimization and disposal; information exchange; and illegal traffic in chemicals and waste. An important tool for supporting the implementation of the proposed project areas would be the use and promotion of the Globally Harmonized System of Classification and Labeling (GHS) of chemicals. Its goal is to ensure that information on physical hazards and toxicity from chemicals is made available during handling, transport and use. The development and implementation of pollutant release and transfer registers (PRTRs) would also be a strong complement to work in the proposed project areas. Project activities can support synergistic interventions that generate multi-focal area benefits, assist countries to address chemicals management in an integrated manner in their national planning, and help mobilize other sources of finance for projects and programs for sound chemicals management to achieve global benefits. In addition, the GEF-5 sound chemicals management funding could advance work in emerging policy issues identified at SAICM ICCM2, including chemicals in articles, lead in paint, and electronic waste (see Annex I).

7 CONCLUSION

22. The GEF can play an important role in carrying forward and ensuring broad implementation of the objectives and priority actions of global concern, achieving environmental benefits that result from sound chemicals management at the national level. Grounded in the GEF's overall approach and strategy for chemicals, the sound chemicals management activities

will support mainstreaming of chemicals management in national development programs, and will leverage broader GEF investments in its chemicals and other programmatic areas.

ANNEX 1: SAICM EMERGING POLICY ISSUES AND POSSIBLE GEF SUPPORT

Lead in Paint

- Lead is a heavy metal with known impacts on health, especially on children's health. Unfortunately, even though there is wide recognition of this problem, which resulted in numerous successful efforts to ban lead in paint across North America and Western Europe over the past 70 years, even today paints are sold with added lead in developing countries and countries with economies in transition.
- Alternatives to lead in paints do exist and cleaner substitutes for lead based pigments, such as titanium dioxide, have been in use for some time now. Yet, there is still a general lack of awareness on the issue and an absence of mandatory standards for lead in paints.
- Recent incidents concerning lead (e.g., lead paint on imported toys) have led to recognition of the need for better management of all chemicals including those in articles in all countries. ICCM2 considered the issue of lead in paint, and endorsed a global multi-stakeholder partnership to promote the phasing out of lead in paints.
- This partnership has since been established as the Global Alliance on Lead in Paint, with UNEP and WHO serving jointly as the Secretariat. The overall goal of the Global Alliance is to prevent children's exposure to lead via paints containing lead and to minimize occupational exposures to lead in paint. The broad objective is to phase out the manufacture and sale of paints containing lead and eventually to eliminate the risks from such paint.
- GEF intervention will be grounded in the business plan developed within the partnership and could support awareness raising on the toxicity of lead and on alternatives, guidance and assistance to identify potential lead exposure, assistance to industry (manufacturers, wholesalers and retailers), prevention programs to reduce exposure, and promotion of national regulatory efforts.

Chemicals in Products

- ICCM2, recognizing that knowledge and information are fundamental to the sound management of chemicals, highlighted a need to review existing information and design new information systems on chemicals in products. ICCM2 agreed to implement a project to increase the availability of and access to information on chemicals in products in the supply chain and throughout their life cycles. It invited UNEP to lead and facilitate the project and to constitute a group with representatives of regions and other stakeholders to advise it on the project. ICCM2 further agreed that the project will collect

and review existing implementation on information systems on chemicals in products; assess the information needs of different stakeholders; and develop recommendations for cooperative action with regard to information on chemicals in products. The project has begun and is managed by UNEP Chemicals, but funding support for its proposed activities is still being sought.

- GEF supported projects could build on this foundation to demonstrate lifecycle approaches to managing specific risks associated with chemicals in products, and support transitions in manufacturing and use of less hazardous substitute products. The projects could demonstrate innovative approaches and economic instruments such as chemical use fees and taxes, chemical leasing, or green chemistry.

E-wastes

- The ongoing information technology revolution has improved people's lives in many ways. Electronic products have become part and parcel of our everyday life. Because of economic growth and technological advances, until recently it is often cheaper and more convenient, in some parts of the world, to buy a new electronic product than to repair or upgrade an old one. Growing dependence on electronic products has given rise to a new environmental challenge, e-waste.
- Currently, e-waste is one of the fastest growing segments of waste streams in Asia and the Pacific as well as in other parts of the world. For example, approximately 4 million personal computers (PCs) are discarded every year in China alone. E-waste valued at \$1.5 billion was generated in India in 2006. Common e-wastes include: PCs, televisions, telephones, cell phones, air conditioners, electronic toys, washing machines, flat screens, refrigerators, microwaves, and other home and office appliances. According to estimates, global PC use was more than 800 million in 2006, growing at 11.4% annually.
- In many countries, e-wastes often end up in landfills or incinerators or are processed in informal recycling operations using rudimentary techniques with little or no worker safety measures in place. Persistent organic pollutants such as perfluorooctane sulfonate (PFOs) and heavy metals such as mercury and lead are commonly used in electronic products and can contaminate the land, water and air. Globally, it is recognized that there is a general lack of reliable data on the generation, collection, import and exports, and management schemes for e-wastes.
- GEF intervention in this area could consist of assisting developing countries and countries with economies in transition in the process of initiating surveys to define the problem, to identify and raise awareness regarding toxic constituents in end-of-life electric and electronic equipment, to develop pilot projects on successful collection schemes, and develop infrastructure to be able locally to recycle such used and end-of-life equipment. Finally, it would be interesting to target those types of equipment that have the greatest potential for impacting human health and the global environment, and at the same time have the greatest economic potential for refurbishment and recycling.

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