Elements of a GEF operational program for reducing and/or eliminating releases of persistent organic pollutants into the environment

Presented by Mayra Sanchez Osuna

UNIDO, The Cleaner Production and Environment Management Branch, Sectoral Support and Environment Sustainability Division Vienna International Center

P.O. Box 300, A-1400 Vienna, Austria

Phone: +43 1 26026 3945, Fax: +43 1 26026 6819, Email: msanchez-osuna@unido.org

Introduction and summary

The Council of the GEF, aware of the growing international consensus on the reduction and/or elimination of releases of Persistent Organic Pollutants (POPs) into the environment, and of the successful development of the negotiation process for a new global convention, has requested the GEF Secretariat to summarise in this paper the main elements and principles that would guide GEF's actions in addressing this new global challenge. Should Council approve this document, the Secretariat will proceed to the preparation of a full-fledged Operational Program. The outline contained in this paper therefore represents a preliminary effort that will be qualified, amplified and refined according to the recommendations of Council.

The nature of the financial resources required to assist countries in meeting their obligations under the draft Convention, and the mechanism for their provision, is still undecided. Should however the GEF be designated as the financial mechanism to the Convention, the guidelines set forth in this new Operational Program will be adapted/revised in the light of the provisions of the Convention itself, of future decisions of the COP, and in consultation with the Interim Secretariat until such a time that COP meets. To assist GEF eligible countries to address the full scope of obligations that might emerge under the new legal instrument, additional resources will have to be made available through an appropriate increase in contributions to the GEF Trust Fund within the framework of the next replenishment in 2002.

This new "cross-focal area" Operational Program will be exclusively dedicated to Persistent Organic Pollutants, and in particular to the twelve substances being considered for international action, and to those substances that might be added in the future under the provisions of the Convention. It will include two main categories of eligible actions: (i) Development and strengthening of capacity, to enable the recipient country to fulfil its obligations under the convention. This first group of activities will be eligible for full funding of agreed costs. (ii) On-the-ground interventions, aimed at implementing specific phase-out measures. The latter category will be eligible for incremental costs funding, and hence require co-financing from the recipient country and/or other donors.

GEF-facilitated activities on the broader range of Persistent Toxic Substances (PTSs) will continue under Operational Program 10 in the International Waters focal area. Eligible actions will be focused on the impact of PTSs on the aquatic environment and biodiversity. Several of these substances can in fact be qualified as "global contaminants", as they represent potential sources of transboundary water contamination¹.

In response to countries requests, synergies and opportunities for the implementation of comprehensive responses to the challenges posed by POPs, and PTSs in general, could be enhanced through coordinated complementary actions in both operational programs.

Background

For more than 30 years, awareness has been growing about the threats posed to human health and the global environment by the ever-increasing release in the natural environment of synthesised chemicals. The number of synthesised chemicals is now beyond 3 million and is growing at a rate of several hundred thousand a year of which 300-500 reach the stage of commercial production. It is estimated that up-to one third of the total production of these chemicals reaches the environment². Mounting evidence of damage to human health and the environment has focused the attention of the international community on a category of these substances referred to as Persistent Organic Pollutants (POPs). Some of these substances are pesticides, while others are industrial chemicals

¹ Under OP10 GEF is already addressing transboundary contamination of heavy metals (mercury): "Removal of Barriers to the Introduction of Cleaner Artisanal Gold Mining and Extraction Technologies" UNDP/UNIDO, full project, \$7.1M GEF, under appraisal.

² Report on the STAP Brainstorming on POPs, Barbados, Feb. 2000

or unwanted by-products of industrial processes or combustion. POPs are characterised by *persistence* - the ability to resist degradation in various media (air, water and sediments) for months and even decades; *bio-accumulation* - the ability to accumulate in living tissues at levels higher than those in the surrounding environment; and *potential for long range transport* - the potential to travel great distances from the source of release through various media (air, water, and, to a lesser degree, migratory species). These chemical substances can disrupt endocrine systems, suppress immune system functions, and induce reproductive and developmental changes. The evidence of detrimental effects on living organisms at the level of entire populations of some POPs demonstrates the threat to biodiversity, and the potential for disruption at the ecosystem level. Organisms at the top of food chains, including humans, usually accumulate the highest body burden over their lifetime.

The GEF and POPs

The involvement of the GEF in addressing global contaminants dates back to 1995, when the GEF Council, recognising the global significance of the problems posed by persistent toxic substances - PTS, which include POPs, heavy metals and organo-metallic compounds, - approved the eligibility of actions aimed at "limiting the releases of contaminants causing priority concerns" in the international waters focal area. Specific reference to persistent organic pollutants is made in the Contaminant Based Operational Program (#10). The program scope of OP10 focuses on contaminants rather than a specific water-body. Under the present provisions, projects utilise demonstrations to overcome barriers to adoption of best practices, and funds the incremental costs of projects designed to achieve global environmental benefits within the context of the international waters focal area.

In the period March 1998 - April 1999, in response to a finding of the Overall Performance Evaluation that called for an increased effort in this field, the GEF and its Implementing Agency, UNEP, defined near-term activities aimed at enhancing GEF's catalytic role. The objectives set forth in the program were rapidly met, and a portfolio of strategically designed projects was developed under OP10 (Global Contaminants component), in the International Waters focal area³. They include regional, and national assessments aimed at providing guidelines and priorities for enhanced GEF action, and demonstrations of ways to build the capacity of client countries to reduce/eliminate the use/production of POPs in agriculture and in the control of vector diseases. Another effort, the "Regionally Based Assessment of Persistent Toxic Substances (PTS)" project, will address the complexities, possible risks, and ecological/human health implications of the broader range of PTS. This project will provide within a limited time (2-3 years), a better understanding of the overall dimensions of the threats posed by PTS, well beyond the 12 substances initially considered for international action.

Rationale for an expanded GEF role

In 1997 the Governing Council of UNEP called for the establishment of an international negotiating committee (INC) with a mandate to prepare a legally binding instrument for implementing international action, beginning with 12 specific POPs. Representatives of more than 90 governments met in Montreal in June 1998 for the first session of the INC. Participation has grown with each of the subsequent INC sessions in Nairobi (January 1999), Geneva (September 1999), and Bonn (March 2000), with participating governments amounting to 103, 115 and 121 respectively. The negotiations are expected to conclude at the fifth session of the INC to be held from 4-9 December 2000 in Johannesburg. The convention will be adopted and opened for signature at a diplomatic conference scheduled for 21-23 May 2001 in Stockholm.

International negotiators are seeking agreement to ban production and use, without exemptions, of three pesticides: *Aldrin, Endrin*, and *Toxaphene*. Elimination of production and use is also being discussed, but with exemptions for specific uses in some countries, for five additional pesticides. For the industrial chemicals, PCBs, all production and new use is to be eliminated, while the continued use of PCBs currently in use is envisioned to be allowed under

³ Persistent Toxic Substances, Food Security, and Indigenous Peoples in the Russian North" UNEP/RAIPON/AMAP, MSP, \$750k GEF, under appraisal

Reducing Pesticide Runoff to the Caribbean - UNEP in collaboration with FAO/IDB/USEPA/World Bank, PDF-B, \$295k (GEF), in preparation Assessing National Management Needs of PTS - UNEP in collaboration with UNIDO/UNITAR/FAO/WHO/World Bank/WWF, PDF-B, \$350k (GEF), in preparation

Comprehensive Action Program to Phase Out DDT and Reduce the Long Term Effects of Exposure in Mexico and Central America - UNEP/PAHO/CEC, PDF-B, \$330k (GEF), in preparation

Regionally Based Assessment of PTS - UNEP in collaboration with FAO/GESAMP/UNITAR/WHO/World Bank/IPEN, full project, \$3.0M (GEF), under implementation

certain conditions for a period to be determined, with eventual environmentally sound disposal as the final outcome. Negotiators have also agreed on basic provisions for continuing minimisation of unwanted by-products (dioxins and furans). For the most part, consensus has been on the criteria for adding new substances, on reduction/elimination timeframes, and on technical assistance needs. Still unsolved is the issue of the financial resources/mechanisms needed to facilitate the implementation of the future convention.

During the second meeting of the INC in January 1999, the GEF expressed its readiness "...to serve as the financial mechanism of the new legal agreement, should that be the decision of the governments negotiating this agreement." GEF also noted that "...additional resources will be required to assist countries to address the full scope of obligations that might emerge under the new legal instrument". An appropriate increase in contributions to the GEF Trust Fund (within the framework of the next replenishment in 2002) would be in fact required in order to prepare and develop the actions needed to successfully face this new and immensely complex global environmental challenge. The GEF Council endorsed this statement and requested the Secretariat and the GEF Implementing Agencies to increase support for country-driven initiatives in the field of POPs

In summarising the status of contaminants in the context of the GEF, the Science and Technology Advisory Panel of the GEF (STAP)⁴ noted, that "interventions are presently confined to the water context under OP10". This fact "restricts the scope and possibilities of action" that could otherwise be taken to meet the needs of several regions since paths of exposure of humans and land animals do not all include marine or freshwater components. STAP concluded recommending that a new Operational Program be put in place to deal exclusively with the requirements emerging from the POPs convention under negotiation. Following this recommendation, the GEF Secretariat proposed to Council during its meeting of May 2000 the development of "a new operational program to support the specific commitments under the convention, both at national and regional levels"⁵. The Council considered this proposal and requested the Secretariat to define the elements of a new operational program dedicated to the phasing out of POP's and to submit the paper to the Council for discussion at its meeting in November 2000.

Elements of an operational program on reducing and/or eliminating releases of persistent organic pollutants into the environment

- 1. GEF response to the challenge posed by the increasing contamination of persistent organic pollutants will adhere to the basic principles set forth in the GEF Instrument and Operational Strategy, which establishes "Operational Principles" for the development and implementation of GEF eligible projects. They are:
- Cost-effectiveness: project activities will maximise global environmental benefits.
- Country ownership⁶: projects will be country-driven, and based on national priorities designed to support sustainable development, as identified within the context of national programs.
- Flexibility: GEF will respond to changing circumstances, including evolving guidance of the Conference of the Parties and experience gained by monitoring and evaluation activities.
- Public participation: projects will provide for consultation with, and participation as appropriate of, the beneficiaries and affected groups of people; all non-confidential information will be made fully public.
- Leveraging of additional financing: in seeking to maximise environmental benefits, the GEF will emphasise its catalytic role and leverage additional financing from other sources.
- Monitoring: GEF will ensure that programs and projects are monitored and evaluated on a regular basis.
- 2. The new Operational Program on the Phasing Out of POPs will be cross-focal area in nature. Multiple global benefits in the areas of the prevention of transboundary contamination of water-bodies, the conservation of biodiversity, and the prevention of land degradation will be accrued from actions eligible under the new OP.
- 3. Activities will be developed at three different geographical levels: national, regional, and global. Emphasis will be on actions at the country level, being the main objective of the OP the facilitation of the implementation of the provisions of the convention in all GEF client countries signatories of the convention. Regional actions will also be undertaken, if deemed appropriate by the countries, whenever similarities in environmental conditions and socio-economic context presents opportunities for the optimisation of resources, the sharing of experience

⁴ Report of the STAP Brainstorming on POPs, Barbados, 21-22 February 2000

⁵ Addressing the global threat of Persistent Organic Pollutants, GEF/C.15/Inf.14, Apr.2000

⁶ All GEF actions will respond to specific requests from those developing countries and countries with economies in transition, which are eligible for assistance according to the GEF Instrument. Each request, presented through an Implementing Agency or directly to the GEF Secretariat, will be entered into the web based Project Tracking and Information System, now being implemented by the Secretariat. The System will allow universal accessibility at all stages during the GEF Project Cycle (concept approval/pipeline entry, approval of preparation funds, work program inclusion, endorsement).

and the enhancement of replication potentialities. Interventions at the global level will also be eligible, in areas such as the facilitation of targeted research efforts, awareness raising and assessments.

- 4. Eligible interventions will fall into two categories:
- Development and strengthening of capacity, aimed at enabling the recipient country to fulfil its obligations under the convention. These country specific *enabling type activities* will be eligible for full funding of agreed costs.
- On the ground interventions, aimed at implementing specific phase-out/remediation measures at national and/or regional level, and including components of targeted capacity building. This second category of GEF interventions (Full Projects, Medium Size Projects and Targeted Research Projects) will be eligible for incremental costs funding, and hence require co-financing from the recipient country and/or other donors.

Enabling activities

- 5. Enabling activities, as defined in GEF Operational Strategy, represent a basic building block of GEF assistance to countries. They either are a means of fulfilling essential communication requirements to a Convention, provide a basic and essential level of information to enable policy and strategic decisions to be made, or assist planning that identifies priority activities within a country. Countries thus enabled will have the ability to formulate and direct sectoral and economy-wide programs to address global environmental problems through a cost-effective approach within the context of national sustainable development efforts. Country driven enabling activities will normally qualify for full agreed costs funding when they are directly related to global environmental benefits and/or consistent with the guidance of a Convention.
- 6. Enabling activities may include:
- Development of action plans for complying with the obligations of the POPs convention and for setting priorities for initiating future activities on POPs.
- Capacity development of a POPs focal unit within each government, to serve as a primary point of contact for POPs related issues among the various ministries involved; training of decision makers, managers and personnel responsible for POPs management.
- The development of country inventories (production, imports, exports, stocks, releases in the environment, contaminated sites, use and disposal of each of the POPs).
- Review of available infrastructure capacity and institutions at different levels and assessment of the needs and options for strengthening them.
- Development of regulatory controls to achieve compliance with the POPs convention.
- Assessment of enforcement capacities to ensure compliance with regulatory controls.
- Assessment of the needs for the introduction of technologies, including technology transfer that would assist countries in meeting convention obligations.
- Assessment of possibilities of developing indigenous alternatives.
- Assessment of the need for the enhancement of local commercial infrastructure for distributing benign alternative technologies/products.
- Development of an outreach/information program to educate the public and industry about POPs related risks, and measures to address them.

Capacity building, technology, transfer, and investments

(Full Projects and Medium Size Projects)

7. While enabling activities prepare the ground for project development and the implementation of national plans, actual project development is not an enabling activity. Project preparation funds may be requested to develop specific project ideas⁷. Actions designed to implement plans and activities identified in the national plans and strategy will be prepared and assessed in the context of the Operational Program guidelines. They will conform to the Operational Strategy principles.

⁷ GEF Project Development Fund (PDF-B)- grant financing, up to \$350k, to cover the preparatory work leading to the submission of a full project proposal.

- 8. Full Projects and Medium Size Projects eligible for funding will be focused on the following four major objectives:
- Develop and/or strengthen the capacity of developing countries and countries with economies in transition to address
 the threats posed by POPs. according to the priorities and needs identified by the countries. Eligible actions may
 include: the strengthening of infrastructure capacity and institutions at different levels, including monitoring and risk
 assessments; strengthening of the enforcement capacity to ensure compliance with regulatory controls; facilitation
 of technology transfer for the introduction of technologies, including indigenous alternatives, that would assist countries
 in meeting POPs convention obligations; enhancement of local infrastructure for distributing benign alternative
 technologies/products; implementation of outreach/information programs.
- <u>Promote/effect transition to sustainable alternatives</u>. To achieve this objective, assistance will be provided to promote the access to, and transfer of, clean and environmentally sound alternative technologies/products/practices, including integrated pest and vector management and BAT/BEP (as will be defined by the scientific advisory body to the convention) for emissions reduction, and to facilitate transition also through barrier removal efforts. Consideration will be given to the local socio-economic and climatic conditions, and to the use of indigenous knowledge.
- Facilitate the environmentally sound disposal of stockpiles of obsolete POPs. Assistance will be provided in the identification⁸, containment and stabilisation, and environmentally sound destruction of stockpiles, including "created stockpiles" (e.g.: PCBs being withdrawn from use). Initiatives under related agreements (e.g.: Basel Convention) will be taken into consideration.
- <u>Facilitate the identification and remediation of sites affected by POPs</u>. Assessments, including risk assessments and feasibility studies maybe required prior to the implementation of actual remediation measures. Focus will be on human health hazards, water resources, ecosystem implications. Within this context, particular consideration will be given to the needs of small island states.

Targeted research

- 9. Within the context of the Operational Program GEF will fund targeted research⁹, including information collection, analysis, and dissemination. Targeted research will be guided by the two following main considerations:
- The GEF could play a facilitating or complementary role in co-funding strategically significant efforts in applied research to help develop activities in recipient countries
- Support is needed in many recipient countries in the application of analytical tools and methodologies, including the use of modern information technologies.
- 10. Potential areas for targeted research on POPs related issues could include, inter alia10:
- The development/promotion of low-cost and easy to apply rapid assessment methodologies, including biological markers, for environmental and human monitoring.
- Development of methodologies for exposure assessment in susceptible populations, including risks derived from constant exposure; characterisation of bio-geochemical behaviour of POPs in tropical areas, and identification of exposure pathways in particular scenarios (malaria areas and hazardous waste areas).
- Development of additive models for forecasting threshold concentration for chemicals in the presence of multiple stressors.
- Development of "regional" models for POPs behaviour and fate (river basins, small island states, up to large portions of continental areas with reasonably uniform climatic and land-use conditions).

GEF coordination and leveraging functions

11. The delivery capacity of the GEF system within the context of the Operational Program on the Phase-Out of POPs will be enhanced through the full involvement of the three Implementing Agencies (UNDP, UNEP, and World Bank), according to their comparative advantages, and through the establishment of specific Strategic Partnerships¹¹. In order to optimise institutional experiences, and facilitate the concerted and sustained action,

⁸ Including assessment of "suspected" stockpiles

⁹ The operational principles outlined at p.1 apply to targeted research projects as well.

¹⁰ Report of the STAP Brainstorming on POPs, Barbados, Feb. 2000

¹¹ Strategic Partnerships (SP) between the GEF and an Implementing Agency are characterised by expedited procedures for project preparation/ approval and by agreed economic and technical benchmarks. They have been approved by Council when the need arose to deal rapidly and systematically with a specific well defined issue (see in particular the SP for the reduction of nutrient discharges in the Black Sea).

- new partnerships have been formed with other relevant actors, in particular the Regional Development Banks (ADB, IDB, EBRD, and AfDB), and those specialized UN Agencies with a comparative advantage in this field, including FAO and UNIDO.
- 12. In response to countries requests, and similar to what is being done within the context of the CBD and UNFCCC, GEF could provide a framework of consultation and cooperation through which the available technical and financial resources could be focused on global, regional, and national strategies and projects. The GEF could develop its catalytic role and enhance the collective response to this new global challenge by coordinating closely with other actors such as bilateral donors, multilateral development cooperation agencies, major NGOs, and the private sector primarily in the chemical industry. To address more effectively issues related the implementation of the convention's provisions GEF could promote and facilitate more integrated responses and programs of action. Such an effort would be aimed at:
- increasing the capacity to deliver timely and quality projects, while increasing also the number of innovative project ideas and diversifying experience;
- expanding the opportunities to co-finance and mobilise additional finance, thus leveraging additional resources for this global challenge;
- achieving synergy and coordination among each agency's own programs in the field of POPs according to their comparative advantages;
- identifying actions and designing partnerships to address effectively the provisions of the convention, including the transboundary and global aspects of POPs phase-out;
- facilitating overall coordination, and partnerships for achieving the needed levels of effective and sustained action.

Final Consideration

13. With the establishment of the proposed new Operational Program dedicated exclusively to the implementation of the provisions of the convention, GEF could greatly expand its commitment to POPs with already available resources¹², and foster the rapid implementation during the *interim period*, and in consultation with the Interim Secretariat, of enabling type activities in requesting client countries. These initial capacity building efforts could include National Implementation Plans and reporting systems, and would be eligible for full funding of agreed costs. Numerous requests for initial assistance have already been received and are being evaluated by the Implementing Agencies.

¹² Based on preliminary evaluations (UNEP/POPS/INC.2/ INF/3 inter alia), the indicative allocation for initial capacity building (enabling activities) has been estimated in the range of \$ 150M.