MEDIUM-SIZED PROJECT BRIEF – Assessment of existing capacity and capacity building needs to analyse POPs in developing countries

PROJECT SUMMARY

Project Identifiers	
1. Project name: Assessment of existing capacity and capacity building needs to analyse POPs in developing	2. GEF Implementing Agency: United Nations Environment Programme (UNEP)
countries	
3. Country in which the project is being implemented: Global -All GEF eligible countries in the selected regions will be invited to participate in the regional workshops and related activities.	4. Country eligibility: Assessment phase: Funding will be directed towards the participation of representatives from countries signatory to the Stockholm Convention Pilot phase: Funding will be directed towards the participation of countries parties to the Stockholm Convention
5. GEF focal area:	6. Operational program:
Persistent Organic Pollutants	OP14; Persistent Organic Pollutants

7. Project linkage to national priorities, action plans and programs:

150 countries and a REIO have signed and 42 countries have ratified the Stockholm Convention on 23 May 2001 or subsequently.

8. GEF national operational focal point and date of country endorsement:

NA

Project Objectives and Activities

9. Project rationale and objectives:

The overall objective of the project is to assess the convention-driven country needs for laboratory analysis and the conditions necessary to conduct them in a sustainable manner, including on a regional basis if appropriate. The feasibility of establishing a fully equipped laboratory in a developing country that may be able to analyze all twelve POPs, including dioxins and furans in relevant matrices will be explored through a pilot study.

Indicators:

- i) Stockholm Convention makes provisions on effectiveness evaluation of the measures taken under the Convention (Article 16) and
- *ii)* Countries may establish limit values, which need to be enforced (Article 5).

10. Project outcomes:

The project would last for 24 months and would

- a) Establish a Core Group and hold 2 Core Group Meetings; one at the start of the project and one before starting the feasibility study;
- b) Analyze past experience and lessons learnt to establish what has worked and what has not;
- c) Analyze existing capacity worldwide and regionally;
- d) Analyze and compare the needs and requirements for analysis from a national point of view with those of the Stockholm Convention effectiveness evaluation;
- e) Evaluate the needs for (i) harmonization of analytical sampling/identification/ quantification methods, (ii) accreditation of laboratories, (iii) quality assurance/quality

Indicators:

- i) Core Group meetings held and work plan agreed;
- ii) List established on criteria for POPs laboratories needed to fulfil the analytical requirements in the Stockholm Convention on POPs;
- iii) A map of POPs laboratories in operation according to their capabilities to analyze different classes of POPs (pesticides, PCBs, dioxins/furans);
- iv) Three regional workshops held and potential hosts of full POPs laboratories identified;
- v) Feasibility study in one country finalized and reported.

- control (QA/QC) and (iv) round robins for POPs:
- f) Identify technical and political conditions for sustainability, including to ensure that regional laboratories would be sufficiently used;
- g) Identify suitable countries with urgent data development needs e.g. in the Southern hemisphere and convene 3 regional workshops with participants from countries with either existing laboratories (to be upgraded) or from countries interested in setting up laboratories
- h) Perform a feasibility study based on the outcome of b) to f) above in a developing country in one region;

The feasibility study under h) would include:

- a) a start up workshop in the selected country for the countries in the region, to identify the specific conditions for political and technical sustainability in the region;
- b) co-ordination by a study manager;
- c) country activities, e.g. national meetings, infrastructure strengthening;
- d) travel to other countries in the region to ensure buy-in and commitment;
- e) support from external international experts;
- f) strengthening capacity by acquiring supplementary hardware, e.g. retrofitting equipment and investment in infrastructure;
- g) trainings workshops for laboratory personnel, preferably in co-operation with "sister lab" in donor country;
- h) testing of draft guidance document for a POPs GMP and participation in round robin tests for quality assurance and quality control;
- i) sampling, preparation and analysis of samples selected according to UNEP Chemicals draft guidance document for POPs GMP.

11. Project activities to achieve outcomes:

- Development of criteria for the assessment of laboratory capacity;
- ii) Development of an inventory of laboratory capacity for POPs worldwide;
- iii) Development of analysis of past experience, lessons learnt, existing capacity, needs and requirements for analysis, technical and political conditions for sustainability;
- iv) Organisation of three regional workshops;
- v) Identification of country for feasibility study, taking particularly into account greatest chances for sustainability
- vi) Organisation of workshops and other activities in the selected country as described above;
- vii) Testing of draft guidance document;

Indicators:

- a) Sustainability criteria established for successful long-term operation of POPs laboratories;
- b) Economic situation and requirements evaluated for different classes of POPs Chemicals and matrices;
- c) Feasibility study completed;
- d) Awareness of POPs analysis and quality of results raised in regions;

12. Estimated budget (US\$):

 GEF:
 Project:
 395,000

 PDF-A:
 NA

 Total:
 395,000

270,

Co-financing: PDF-A (all sources): NA

Cash from donor countries:576,300In-kind participating countries:170,000In-kind UNEP:115,000In-kind other IGOs:60,000Subtotal Co-financing:921,300

Total Project Cost: 1316,300

Information on Institution Submitting Project Brief

13. Information on Project proposer:

UNEP Chemicals Unit has managed the process that led to the adoption of the Stockholm Convention on Persistent Organic Pollutants. The project will build on the experience gained by the UNEP Chemicals Unit through its on-going capacity-building programme and the great number of workshops on POPs awareness raising, on management of POPs, from the POPs Global Monitoring Programme and other technical issues related to the convention.

14. Information on proposed executing agencies:

UNEP Chemicals Unit will execute the project.

15. Date of initial submission of project concept: July 2002

Information to be completed by Implementing Agency

16. Project identification number: Not yet assigned

17. Implementing Agency contact person: Ahmed Djoghlaf, Executive Co-ordinator, UNEP GEF

Co-ordination Office, PO Box 30552, Nairobi, Kenya,

Ahmed.djoghlaf@unep.org, fax.: 254 2 624041

18. Project linkage to implementing Agency programs:

UNEP Governing Council decision 22/4,II, particularly paragraph 1 which encourages countries to ratify the POPs Convention, and paragraph 6 which invites the Executive Director of UNEP to take actions to facilitate voluntary implementation of the Convention prior to its entry into force.

PROJECT DESCRIPTION

PROJECT RATIONALE AND OBJECTIVES

- 1. The Stockholm Convention requires Parties to monitor for Persistent Organic Pollutants (POPs) in the environment across the globe.
- 2. The Convention contains provisions for research, development and monitoring (Article 11). Parties are requested to encourage or undertake research, development, monitoring and cooperation pertaining to POPs, their alternatives and candidate POPs. The request for research covers many areas, e.g., sources and releases into the environment; levels and trends in humans and the environment; environmental transport, fate and transformation; effects on human health and the environment; socio-economic and cultural impacts; release reduction and/or elimination; and harmonized methodologies for making inventories of POPs by-product sources and analytical techniques for the measurement of releases. Lastly, Parties have to define best available techniques (BAT) and best environmental practices (BEP) to minimize or eliminate by-

product releases.

- 3. Parties shall also support international programmes, networks and organizations involved in defining, conducting, assessing and financing research, data collection and monitoring. They should minimize duplication of effort and support national and international efforts to strengthen national scientific and technical research capabilities, particularly in developing countries and countries with economies in transition, and promote access to data. They should also undertake research on the effects of POPs on reproductive health and make the results of their research, development and monitoring activities accessible to the public and undertake cooperation with regard to storage and maintenance of information generated from research, development and monitoring.
- 4. In addition, there are provisions for evaluating the effectiveness of the Convention (Article 16). The Conference of the Parties shall, at its first meeting, initiate the establishment of arrangements to provide itself with comparable monitoring data on the presence of POPs as well as their regional and global environmental transport. These arrangements should be implemented by the Parties on a regional basis when appropriate, in accordance with their technical and financial capabilities, using existing monitoring programmes and mechanisms to the extent possible and promoting harmonization of approaches. They should report to the Conference of the Parties on the results of the monitoring activities on a regional and global basis at regular intervals.
- 5. The Stockholm Convention also contains a number of provisions related to unintentionally produced substances such as polychlorinated dibenzo-p-dioxins and polychlorinated dibenzo-furans (PCDD/PCDF) (Article 5), where identification and quantification of sources of these compounds and their continuing minimization are requested. Further, the Convention requests Parties to apply best available techniques and to promote use of best environmental practices to fulfill the obligations under the Convention. According to each country's action plan, the Convention's requirements need to be phased in rapidly but some flexibility is left to the Parties, e.g., Parties may wish to establish legally binding limit values or prefer to give general guidance on release reduction and prevention methods. The success of the measures undertaken to reduce PCDD/F emissions has to be evaluated every five years (Article 5(a)(v)).
- 6. Although the Convention does not explicitly require Parties to undertake sampling and analysis of dioxin and furan releases (e.g., stack, effluent, residue, or product) countries may wish to confirm their estimates of dioxin and furan generation and release by sampling and analysis. In addition, in some cases Parties may wish to monitor emissions of PCDD/PCDF to determine the effectiveness of BAT/BEP measures taken. In terms of analysis, the Stockholm Convention also identified polychlorinated biphenyls (PCBs) and hexachlorobenzene (HCB) as byproducts. Lastly, the Convention defines the toxic equivalent to express the toxicity of PCDD/PCDF in such a way that it includes the coplanar PCBs (also named dioxin-like PCBs) that may also need to be analyzed in conjunction with PCDD/PCDF.
- 7. Article 6 of the Convention requires Parties to identify stockpiles and wastes that either consist of POPs or contain POPs. It is foreseeable that there will be many cases when analyses

will be needed to confirm presence or absence of POPs; e.g., when "low persistent organic pollutant content[s]" were established (Article 6(c)).

- 8. Article 7 of the Convention requires all Parties to submit their information in a National Implementation Plan (NIP) to the Conference of the Parties, including any data on the above. The NIP should take stock of the situation in countries including any relevant data on levels and impacts of POPs.
- The entry into force of the Stockholm Convention will increased demand for POPs analysis in all areas and for all POPs; the demand will likely exceed present capacity. The most demanding requirements for the analysis of POPs are with PCDD/PCDF and dioxin-like PCBs. For these chemicals, the present situation is such that laboratory capacity for POPs analysis and monitoring exists in a few OECD countries. The geographic coverage for POPs pesticides, PCBs, and HCB is much better although presently no judgment can be made as regards to the quality of the data. The need for analysis of these compounds may increase the imbalance between developing countries/countries with economies in transition (DC/EIT) and developed countries and may lead to a south to north cash flow with OECD countries as net beneficiaries. The engagement of developing countries and countries with economies in transition in the Convention might decrease and they would also be deprived of a "business opportunity" as their products may not be found acceptable on international markets. On the other hand, certified POPs-free products from developing countries may have excellent market opportunities. There are several laboratories existing in developing countries and countries with economies in transition that could form the basis of enhanced laboratory capacity if additional resources were provided for equipment, training and start-up costs.

Programming context

- 10. Article 16 of the Convention requires that the Conference of the Parties undertake an effectiveness evaluation four years after the entry into force. This is a collective undertaking by all Parties acting in unison. Parties from some regions, e.g., North America and Northern Europe would be able to provide adequate and comparable monitoring and other data, obtained under existing regional arrangements. However, Parties from regions, e.g., Sub-Saharan Africa or CIS countries would not be able to provide similar data to complete the global evaluation, since arrangements in their regions would be inadequate or lacking. Without data from all regions the global effectiveness evaluation my not proceed.
- 11. This project will thus assist Parties in developing country regions or regions with economies in transition to provide their contribution to the global evaluation. This will not only apply to those Parties in which POPs laboratories would be established or existing facilities strengthened. Also the other countries in the region would contribute to the global effectiveness evaluation by providing samples from their territory, gathered according to internationally accepted procedures established through this project or other similar activities e.g., the POPs Global Monitoring Network, thus adding national and regional content to the global evaluation.
- 12. Individual countries are now starting to develop project proposals to GEF for national facilities for monitoring POPs. It would be most unfortunate if such efforts were left to

themselves would lead to different approaches.

- 13. Presently countries are hesitating to tackle POPs issues, as they do not have the analytical capacity to follow successful implementation of measures towards POPs elimination. Countries with analytical capacity face the problem that their nationally generated results very often are questioned by OECD countries. Regionally available analytical capacity and qualifications through international intercalibration studies will improve the countries' commitment to the Stockholm Convention and make their results acceptable to the international community.
- 14. According to the Elements for a GEF Operational Programme for Reducing and Elimination Releases of POPs into the Environment (OP14) activities will be developed at three different geographical levels: national, regional, and global. Emphasis will be on actions at the country level, as the main objective of the OP is to provide assistance to countries for the implementation of the provisions of the convention. Regional actions will also be eligible or financing if deemed appropriate by the countries, when similarities in environmental conditions and socio-economic context presents opportunities for the optimization of resources, the sharing of experience and the enhancement of replication potentialities.
- 15. Eligible interventions will fall into two categories:
- Development and strengthening of capacity, aimed at enabling the recipient country to fulfill its obligations under the convention. These country specific enabling activities will be eligible for full funding of agreed costs.
- On the ground interventions, aimed at implementing specific phase-out and remediation measures at national and/or regional level, and including components of targeted capacity building. This second category of GEF interventions (Full Projects or Medium Size Projects, including Targeted Research Projects) will be eligible for GEF incremental costs funding.
- 16. According to the GEF Initial Guidelines for Enabling Activities for the Stockholm Convention on POPs the Capacity Building Support for Enabling Activities component is aimed at enhancing the technical ability of countries to prepare their NIPs in a systematic and participatory manner. Further activities, based on country-driven needs, will be developed by the GEF Secretariat in close cooperation with the GEF Implementing Agencies, Executing Agencies, and the Interim Convention Secretariat. One concrete result is the project on Development of NIPs in 12 pilot countries, which has recently started.
- 17. In addition to the above support, the GEF will assist countries to meet future capacity building needs through the framework for GEF Action for Capacity Building.
- 18. The present proposal is intended to link the national analytical needs to the regional level to fulfill the obligations under the Convention and finally to the global level by means of the effectiveness evaluation undertaken by the Conference of the Parties. It is not possible for every single country to develop facilities for a complete monitoring and assessment of all POPs, including PCDD/PCDF, under the Convention. However, regional laboratory capacity, based on interest and previous experience, to develop capacity to cover all POPs would make sense and support the implementation of the Convention. Similarly, several countries in these regions could

be supported to develop capacity to monitor several of the POPs, with the exception of the polychlorinated PCDD/PCDF. Finally, all countries in the region could develop the capacity to participate in the controlled sampling of different media for further processing and analysis. The development of capacity to monitor and analyze POPs in a few countries would also enable those countries to more fully implement the Convention and also assist other countries in the region in their efforts to do the same. Locally generated data to determine emission factors are crucial for the fulfillment of the inventory obligation of the Convention under Article 5. The emission factors available so far were taken from northern hemisphere, industrialized countries' experiences and do not take into account local conditions in developing countries such a biofuels (e.g., coconut husks and other harvest residues), local raw materials (lime, active carbon, etc.) or locally produced simple furnaces in waste disposal or simple technologies applied in the metal recycling sector. The confidence in the accuracy of the national inventories will largely depend on the perception of the developing countries that their local conditions are properly reflected in the methodology.

When regional capacity is assessed the likelihood of "buy-in" by countries of a regional lab and the economic and qualitative feasibility of regional labs, especially with regard to keeping technical expertise needs to be carefully studied. For a regionally operated entity to achieve sustainability, it would be necessary to seek commitments from surrounding countries and to explore various ways of cost recovery for the analyses performed beyond the life of the present project. A detailed and objective assessment of the capacity of possible host countries/institutions to properly service and maintain the very sophisticated analytical equipment is also needed.

The objectives of the proposed project are to:

19. The overall objective of the project is to assess the convention-driven country needs for laboratory analysis and the conditions necessary to conduct them in a sustainable manner, including on a regional basis if appropriate. Based on this and on a thorough analysis of past experience and lessons learned, the economic and qualitative feasibility of establishing a fully equipped regional laboratory in a developing country that may be able to analyze all twelve POPs, including dioxins and furans in relevant matrices will be explored through a pilot study.

CURRENT SITUATION (BASELINE COURSE OF ACTION)

- 20. Governments have agreed that POPs present a global threat to human health and the environment. Data on POPs and their alternatives from all regions of the globe are therefore essential to establish the level of the threat in different parts of the globe and to evaluate the effectiveness of the measures undertaken by Parties under the Convention.
- 21. The resources available to Parties to fulfill their obligations according to Articles 11 and 16 are widely differing between different countries, regions and sub-regions. Data on levels and trends in environmental media, e.g., air, water, soil and sediment and biota are concentrated to a few regions and sub-regions in the Northern hemisphere, mainly industrialized countries. Research on sources, effects, etc. is also limited to industrialized countries.

- 22. There is an emerging demand and willingness in many developing countries to take a more active part in research and monitoring of POPs. Within some developing countries there are institutions and laboratories that, with some further support, could become active and contributing partners in a global network of research and monitoring activities. This would substantially contribute to the global picture of POPs and fill crucial gaps in knowledge on the environmental transport and distribution of POPs and on impacts in regions that have not been sufficiently covered so far.
- 23. The monitoring and analytical capacity is unevenly distributed across the globe, and knowledge about levels in the environment is similarly restricted to countries and regions with good laboratory facilities. In general, the Southern hemisphere lacks adequate data when compared to the Northern hemisphere. Data gaps are most obvious for the South American continent and the Sub-Saharan parts of Africa, with a general lack of monitoring programmes and where very few environmental levels and impacts data are available.
- 24. The GEF Regionally Based Assessment of Persistent Toxic Substances (RBA PTS) executed by UNEP Chemicals was recently finalized. The Global Report and the twelve regional reports are all available in hardcopy, on CD-ROM and on the Internet (http://www.chem.unep.ch/pts/). The project has provided information on the threats caused by these substances at the regional and sub-regional level. However, the project only used existing data. For areas where data were sparse the outcome of the assessment was a broad identification of data gaps and a strong request to the GEF to support the generation of the necessary data for a more thorough assessment.
- 25. UNEP Chemicals has initiated work on a Global Network for the Monitoring of POPs in the Environment. The network will strongly rely on existing monitoring activities, presently again mainly restricted to the Northern hemisphere and will initially focus on POPs. To the extent possible, the Global Network will use the expertise and the outputs of the GEF RBA PTS project. Efforts will be made to identify institutions and organizations in developing countries that could become partners in the network, given sufficient resources to develop their capacities and capabilities. A workshop to develop a POPs Global Monitoring Programme to support the effectiveness evaluation of the Stockholm Convention on POPs was held in March 2003. The workshop proceedings are available in hard copy, on CD-ROM and on the Internet (http://www.chem.unep.ch/gmn/default.htm).

In follow up to the workshop UNEP Chemicals is developing a guidance document for a POPs Global Monitoring Programme. The draft guidance document would be available to be tested in the pilot study or studies under this proposal.

26. The GEF has approved a \$7.5 Million project for the development of National Implementation Plans (NIPs) in twelve pilot countries. The objective is to strengthen national capacity to manage persistent organic pollutants and to assist countries in meeting their obligations under the Stockholm Convention. This will include an assessment of monitoring and research and development capacity. A draft guidance document for the development of NIPs has been published.

27. In addition, almost 100 countries have received support from the GEF for enabling activities, e.g., the development of NIPs. Most of the remaining GEF-eligible signatories or Parties are presently at various stages in the process of developing a project proposal for GEF approval and some have already started the NIP development.

LINKAGES WITH OTHER PROJECTS AND UNEP REGULAR WORK PROGRAMME

- 28. International Development Agencies have been assisting activities for capacity building of environmental laboratories in the developing world for decades. AUSAID has an Environmental Laboratories Project in Indonesia that started in 1998. The Canadian agency International Development Research Center assisted with water quality monitoring (pesticide testing) at the Municipal Level and safe drinking water quality in Argentine, Columbia, Chile, Costa Rica, India, Mexico, and Ukraine. The Danish EPA assisted with a Laboratory Project-Laboratory of Reference in Slovak Republic, which established a proper reference laboratory for ecotoxicological tests. The Swiss Agency for Development and Co-operation assisted in Madagascar in 1996 with a project entitled "Control Laboratory for Pesticides." The present project will link to these and other identified laboratories with on going POPs analytical activities through contacting them to identify possible overlaps with laboratories in the ongoing work to establish a POPs inventory.
- 29. The United Nations University (UNU) established a programme in 1996 entitled "Environmental Monitoring and Governance in the East Asian Hydrosphere: Monitoring of POPs in Water" to build capacity of selected laboratories in East Asia for environmental monitoring. Nine countries participate: China, Indonesia, Japan, Korea (Republic of), Malaysia, the Philippines, Singapore, Thailand, and Viet Nam. The project has received instruments, training and money from the Shimadzu Corporation. Links will be made to the UNU network in the present project through the Japanese project on POPs monitoring in East Asia, in which UNU is one of the partners.
- 30. WHO-GEMs has recently undertaken an Analytical Quality Assurance study on pesticide residues in cooperation with the GTZ Pesticide Service Project. Several laboratories from developing countries participated and some of these produced acceptable data. These laboratories should possibly be considered for the regional labs. WHO-GEMS is a member of a UNEP Chemicals Advisory Group for a POPs Global Monitoring Programme (GMP). Discussions are ongoing about establishing a Letter of Agreement that would include the accessibility of WHO-GEMS data on POPs to a wider audience.
- 31. The GTZ Improving Pesticide Management in Developing Countries Programme has established a project to strengthen the national accreditation schemes according to international standards entitled "Quality Assurance in Analytical Laboratories in Morocco, Jordan, and Turkey." During 1996 to 1999, the existing national accreditation systems were evaluated within Morocco, Jordan and Turkey, and pesticide residue laboratories were supported to achieve accreditation on the basis of ISO Guide 25 or EN 45001. These and other laboratories would be included in the identification phase.

32. With the exception of the WHO programme, the abovementioned activities are focused on a single country or a small number of countries. To get an overall global picture of the situation UNEP Chemicals has developed and distributed to all countries a questionnaire that seeks to identify potential partners in a POPs Global Monitoring Programme. The responses to the questionnaires will be compiled and analysed together with the information above to provide more information on the state of knowledge on the issue of laboratory capacity worldwide.

EXPECTED PROJECT OUTCOMES

- 33. The project would last for 24 months and would
 - a) Establish a Core Group and hold 2 Core Group Meetings; one at the start of the project and one before starting the feasibility study;
 - b) Analyze past experience and lessons learnt to establish what has worked and what has not;
 - c) Analyze existing capacity worldwide and regionally based on earlier efforts and responses to the UNEP Chemicals questionnaire;
 - d) Analyze and compare the needs and requirements for analysis from a national point of view with those of the Stockholm Convention effectiveness evaluation;
 - e) Evaluate the needs for (i) harmonization of analytical sampling/identification/ quantification methods, (ii) accreditation of laboratories, (iii) quality assurance/quality control (QA/QC) and (iv) round robins for POPs;
 - f) Identify technical and political conditions for sustainability, including the economic and qualitative feasibility of regional labs, especially with regard to keeping technical expertise, to ensure that the regional laboratories would be sufficiently used;
 - g) Identify suitable countries with urgent data development needs e.g. in the Southern hemisphere and convene 3 regional workshops with participants from countries with either existing laboratories (to be upgraded) or from countries interested in setting up laboratories;
 - h) Perform a feasibility study based on the outcome of b) to f) above in a developing country in one region;
- 34. The feasibility study under h) would include:
 - a) a start up workshop in the selected country for the countries in the region, to identify the specific conditions for political and technical sustainability in the region;
 - b) co-ordination by a study manager;
 - c) country activities, e.g. national meetings, infrastructure strengthening;
 - d) travel to other countries in the region to ensure buy-in and commitment;
 - e) support from external international experts;
 - f) strengthening capacity by acquiring supplementary hardware, e.g. retrofitting equipment and investment in infrastructure:
 - g) trainings workshop for laboratory personnel, preferably in co-operation with "sister lab" in donor country;
 - h) testing of draft guidance document for a POPs GMP and participation in round robin tests for quality assurance and quality control;
 - i) sampling, preparation and analysis of samples selected according to UNEP Chemicals draft guidance document for POPs GMP.

ACTIVITIES

Project management (A1)

- 35. The project will be managed by a core group led by UNEP, the World Bank, MEDPOL, Canada and GTZ as the major donors to the second phase of the project assisted by the secretariats of the Basel, Rotterdam and Stockholm Conventions. Other IGOs, e.g. FAO, UNIDO, UNDP, UNITAR and WHO will be invited to participate in the workshops, as well as representatives of relevant regional agreements on waste and chemicals. The core group will oversee and take responsibility for:
 - i. Developing, and agreeing on, the final agenda for each workshop;
 - ii. Development of workshop material;
 - iii. Organisation of the workshops;
 - iv. Assessment of the outcomes; and
 - v. Widely disseminating the outcomes of the workshops to those who might need them.

The core group will meet at the start of the project to develop a model agenda for the workshops, and before the feasibility study to agree on the selection of the country.

Analysis of past experience, lessons learned, needs, requirements and sustainability conditions (A1)

36. Several international organizations, including the GEF implementing agencies, and donor countries have been involved in programmes to build capacity for laboratory analysis of hazardous substances. The experiences and lessons learned from such programmes will be analyzed. Also, the needs and requirements for analysis from a national point of view and from a global convention effectiveness evaluation point of view will be analyzed. In addition, the political and technical conditions for sustainability and long-term commitment will be analyzed. Criteria for assessing sustainability would be developed in co-operation with the World Bank.

Development of an inventory of global laboratory capacity for measuring POPs (A2)

37. The awareness raising workshops jointly organized by UNEP and IFCS and later the management workshops by UNEP, the GEF project on Regional-based Assessment of PTS (GEF RBA), the POPs Global Monitoring Programme, dioxin and PCB inventory projects and the NIPs Pilot Project have identified a number of laboratories capable to perform POPs analyses. A questionnaire has recently been developed and sent out by the POPs GMP to those and other potential partners in a future network. The responses gathered would be utilized in creating an inventory on laboratory capacity. In addition, the relatively few manufacturers of sophisticated analytical equipment will be contacted for information on their customers.

Organization of three regional workshops (A3)

38. Based on the criteria and the analysis under A1 and the inventory (A2) three developing country regions with significant potential for fully measuring all twelve POPs would be selected.

For each of the regions a regional workshop would be organized, bringing together experts on the measurements of POPs from all countries in the regions. The workshops would aim at further identify the level of expertise, infrastructure and sustainability of candidate laboratories in the region, as well as their capacity to serve the region as a whole with measurements on POPs.

Identification of suitable countries for a feasibility study (A4)

39. Following the workshop, site visits at candidate countries would be undertaken. The site visits would aim at getting more detailed information on the necessary expertise, trained personnel, laboratory facilities, infrastructure, financial and technical support, links and cooperation with other qualified laboratories, publications etc. A final selection would be made by the core group based on all the information gathered.

Feasibility study in one country (A5)

40. Based on the site visits to a few candidate countries, one country in a developing country region would be selected for a feasibility study. The study would include a start up workshop in the selected country for the countries in the region, to identify the specific conditions for political and technical sustainability in the region; co-ordination of all elements throughout the study by a study manager; various country activities, e.g. national meetings, infrastructure strengthening, etc.; training workshops for laboratory personnel, investment to upgrade equipment; travel to and from other countries in the region to ensure buy-in and commitment from them; support on technical issues from external international experts; the testing of a draft guidance document for a POPs Global Monitoring Programme and participation in round robin tests for quality assurance and quality control; and sampling, preparation and analysis of samples according to the draft UNEP guidance document for a POPs GMP.

SUSTAINABILITY ANALYSIS AND RISK ASSESSMENT

41. To ensure sustainability, commitments from countries to provide basic support for the laboratories would be sought during the project as a prerequisite part of the country selection process. In addition, various ways of cost recovery for the analyses performed would also be explored. A very detailed and objective assessment of the capacity of possible host countries/institutions to properly service and maintain the very sophisticated analytical equipment would be conducted. The assessment would include a feasibility study for each region of sustainability in terms of pay-as-you-go, i.e., after a start up phase the labs must be self-sufficient and rely on requests for analyses from the region. This needs to be explored in some detail, including e.g. cost per sample, throughput, certification, etc.

STAKEHOLDER INVOLVEMENT AND SOCIAL ASSESSMENT

42. Target groups

- The main target groups for this project are:
 - a. Country experts on POPs measurements; and
 - b. Government representatives at the policy level responsible for preparing the ratification of the Convention and lead technical ministries that will be charged

with developing a NIP under the Convention and implementing the Convention upon its entry into force;

In addition the following groups should be included:

- Regional or sub-regional organisations;
- Industry; and
- Environmental NGOs and other representatives of Civil Society.

INCREMENTAL COST ASSESSMENT

43. The baseline contribution of US\$ 170,000 to the project consists of the time spent by Government officials and experts preparing, participating to, and ensuring follow-up to, the workshops and site visits. In addition, the in-kind contribution from UNEP for hosting core group meetings, preparation, participation and follow-up of workshops and site visits and training is estimated at US\$ 115,000 and the in-kind contribution of other participating intergovernmental organisations at US\$ 60,000. See also Table 1.

Table 1: Incremental Cost Table (US\$)

Activity	Baseline	Alternative	Increment	Co-financing of Increment	Cost to GEF
A1 Core group meetings	0	30,000	30,000	15,000	15,000
A1 Development of sustainability criteria and analysis of past experience	0	30,000	30,000	0	30,000
A2 Preparation and analysis of a questionnaire on global laboratory capacity for POPs measurements	0	30,000	30,000	30,000	0
A3 Preparation and organization of three regional workshops	150,000	590,000	420,000	90,000	350,000
A4. Site visits	0	40,000	40,000	40,000	0
A5 Feasibility study in one country	20,000	530,000	510,000	510,000	0
Total	170,000	1250,000	1060,000	685,000	395,000

BUDGET

Table 2: Estimated breakdown of costs by activity (US\$)

ACTIVITY ACTIVITY	Costs			TOTAL
	GEF	BMZ	In-kind	
A1 2 Core group meetings	15,000	DIVIE	15,000	30,000
Al Development of sustainability criteria,	30,000		13,000	30,000
analysis of past experience, needs,	30,000			30,000
requirements, sustainability conditions, 3				
man-mo				
Al total	45,000	0	15,000	60,000
A2 Preparation and analysis of a	,		30,000	30,000
questionnaire on laboratory capacity 3 man-			30,000	30,000
mo, in-kind UNEP				
A2 total	0	0	30,000	30,000
A3 Workshops, 40 participants x 3 (travel +	260,000		,	260,000
DSA)	200,000			200,000
A3 In-kind countries (time for preparation/			150,000	150,000
workshop/ follow-up), 1man-mo/country			120,000	100,000
A3 Invited experts' participation	30,000			30,000
A3 In-kind UNEP (time for preparation/	,		30,000	30,000
Workshop/ follow-up), 1 man-mo x 3				,,,,,,,
A3 In-kind other IGOs participation to WS,			60,000	60,000
4 per WS: 4 man-wk + $4x$ (travel + DSA) x 3				ĺ
A3 Misc. WS: room rental, hospitality etc	60,000			60,000
A3 total	350,000	0	240,000	590,000
A4 Site visits UNEP + experts		30,000	10,000	40,000
A4 total	0	30,000	10,000	40,000
A5 Feasibility study in a developing country	-	30,000		30,000
in one region; start up workshop, 20				, , , , , ,
participants				
A5 Co-ordination of activities, 4 man-		40,000		40,000
months				
A5 Country activities including training		100,000		100,000
workshops for laboratory personnel e.g. in				
sister labs in donor country				
A5 Upgrading of equipment and		100,000		100,000
infrastructure				
A5 Regional travel		30,000		30,000
A5 Expert support for feasibility study, 3		30,000		30,000
man-mo		150 000		150.000
A5 Guidance document testing and		150,000		150,000
participation in round-robin tests including				
sampling, preparation and analysis			20.000	20.000
A5 In-kind country			20,000	20,000
A5 In-kind UNEP (time for visits, training			30,000	30,000
etc.) 3 man-mo				
A5 total	0	480,000	50,000	530,000
SUBTOTAL	395,000	510,000	345,000	1250,000
	393,000	66,300	343,000	66,300
13 % implementing agency fee	205.000	-	245.000	
Total	395,000	576,300	345,000	1316,300

IMPLEMENTATION PLAN

Duration and schedule of activities

Activity	Time period
Preparation of assessment criteria, analysis of experiences, needs and requirements, and conditions for sustainability(A1)	Mid 2004
Core group meetings(A1)	Mid 2004 and Mid 2005
Preparation of questionnaire and development of inventory on existing laboratory capacity (A2)	March to June 2004
Workshops (A3) • First region	3 rd quarter of 2004
 Second region 	3 rd quarter of 2004
Third region	4 th quarter of 2004
Identification of suitable countries (A4)	1 st quarter of 2005
Feasibility study in one country (A5)	During 2005

Execution Arrangements

44. The UNEP Chemicals Unit in co-operation with the World Bank and in collaboration with the Basel Convention Regional Centres for Training and Technology Transfer for the Environmentally Sound Management of Hazardous Wastes and the Minimization of their Generation, where available will execute the project.

MONITORING AND EVALUATION

- 45. Monitoring of progress in execution of the project will be undertaken by the UNEP-GEF Coordination Office through UNEP and GEF requirements of quarterly and half-yearly reports on substantive and financial matters. The workshops will be evaluated as to their clarity and utility by a simple questionnaire adopted from the GEF Country Dialogue Workshop provided in Annex I.
- 46. A terminal desk evaluation of the project will be undertaken by UNEP Chemicals in collaboration with UNEP-GEF Co-ordination Office in accordance with internal procedures followed by an independent evaluation at the end of the project to be overseen by UNEP's Monitoring and Evaluation Unit. The end-of-term project evaluation will review the following

parameters:

- At Project Objective Level:
 - Extent to which the project has identified suitable laboratories
- At Project Outcome Level:
 - Level of participation of target groups in the workshop;
 - Usefulness of the issues selected;
 - Number, type and quality of products generated; and
 - Extent of engagement of private sector and civil society.
- At Project Activity Level:
 - Quality of assessment criteria;
 - Completeness of inventory of global laboratory capacity for Pops;
 - Number of participants in each workshop; and
 - Identification of two final candidate laboratories.
- At Functional, Management and Administrative Level:
 - Quality of project Co-ordination;
 - Follow-up to workshop recommendations; and
 - Quality of workshop facilitation and management.
- 47. Evaluation of the overall performance of the project will also be undertaken within the framework of the Monitoring and Evaluation Programme of the GEF Secretariat, which will include an annual GEF Project Implementation Review of the project by UNEP Chemicals and SBC with the assistance from the UNEP-GEF Co-ordination Office.