# <u>UNITED NATIONS ENVIRONMENT PROGRAMME</u>

# **PROJECT DECISION SHEET**

Title of Project:	Regionally-Based Assessment of Persistent Toxic Substances
Project number:	GF/XG/4030-00-20
Sub-Project No:	NA
Implementation:	Internal (Chemicals Unit)
<b>Approval:</b> This pr <b>For UNEP</b>	:
For GEF:	approved by the UNEP/GEF Programme Coordination Committee: at its meeting of 5/10/99
Tor GET.	a) approved by the GEF Council Meeting at its meeting of 8-10/12/99
	b) cleared by the GEF Secretariat in a letter from its Chief Executive Officer dated: 21/7/00
Decision:	To approve this project with a duration of 24 months at a cost of US\$ 2,662,000 to the GEF Trust Fund
	A. Djoghlaf, Executive Co-ordinator, UNEP GEF Co-ordination Office
	Date:
	E. F. Ortega, Chief
	Budget and Funds Management Service  Date:
	S. Kakakhel, Deputy Executive Director,
	Chairman, GEF Programme Co-ordination Committee
	Date:

# STANDARD DISTRIBUTION LIST FOR

# PROJECT DOCUMENTS/REVISIONS

To:	Chief, Financial Resource Management Service (FMRS)	(1 copy)
c.c.:	Fund Management Officer: Ms. I. Njeru FMO UNEP Chemicals: Ms. C. Cameron Director UNEP Chemicals: Mr J. Willis GEF PTS Programme Officer: Mr. L Granier GEF Data Management Officer: Ms. S. Aggarwal-Khan Chief, Programme Coordination and Management Unit Chief, Evaluation and Oversight Unit	(1 copy) (1 copy) (1 copy) (1 copy) (1 copy) (1 copy) (1 copy)
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# **UNITED NATIONS ENVIRONMENT PROGRAMME**

# **PROJECT ACTION SHEET**

**Title of sub-programme:** 4.3 Chemicals

Date: Action

August 2000

Cost to GEF

Title of Project:	Regionally-Based Assessment of Persistent Toxic Substances
Project Number:	GF/XG/4030-00-20
Geographical Scope:	Global
Implementation:	Internal (Chemicals)
actions required in connecti	24 months 1 September 2000 31 August 2002  The is transmitted with a copy of the project document, lists the on with the implementation of the project. It constitutes the Financial Resource Management Service (FRMS) to effect the
Signat	E. F. Ortega Chief Budget and Funds Management Service, UNON

Date: \_\_\_\_\_

Responsible Office

Record commitment in US\$: PRDB/BFMS/UNON

2002

431,500

**Total** 

2,662,000

2001

1,704,000

2000

526,500

# **UNITED NATIONS ENVIRONMENT PROGRAMME**

# **PROJECT IDENTIFICATION**

**1.1 Title of sub-programme:** 4.3 Chemicals

1.2 Title of Project: Regionally-Based Assessment of Persistent Toxic

Substances

1.3 Project Number: **GF/XG/4030-00-20** 

**1.4 Geographical Scope:** Global

**1.5** Implementation: Internal (Chemicals)

**1.6 Duration of the Project:** 24 months

Commencing: 1 September 2000 Completion: 31 August 2002

1.7 Cost of the Project: (Expressed in US\$)

	US\$	%
Cost to the UNEP-GEF Trust Fund:	2,662,000	61.2
Counterpart contributions:		
Australia	200,000	4.6
France	65,000	1.5
Germany	420,000	9.6
Sweden	150,000	3.4
Switzerland	100,000	2.3
United States	500,000	11.5
Canada*	30,000	0.7
In-kind contribution from UNEP:	25,000	0.6
In-kind contribution from experts:	200,000	4.6
Total cost of the project (excluding PDF-B):	4,352,000	100.0

1

<sup>\*</sup> Funds not administered by UNEP

#### 1.8 Project Summary

The overall objective of the project is to deliver a comprehensive regionally based assessment of the damage and threats posed by persistent toxic substances, and to evaluate and agree the priorities between chemical related environmental issues at the regional level in order to focus subsequent interventions on the most important and pressing issues. The twelve Regional Reports will include assessment of the sources of persistent toxic substances in the environment, their concentrations and impact on biota, their transboundary transport, and an assessment of the root causes of the problems and capacity to manage these problems. Consolidation of the results of the regional analyses will provide an assessment of global priorities. The results of the assessment will be widely disseminated via the World Wide Web and other media.

<b>Signat</b>	ure
	E. F. Ortega
	Chief
	Budget and Funds Management Service, UNON
Date:	

#### **PROJECT BRIEF**

1. IDENTIFIERS

PROJECT NUMBERImplementing Agency No. not yet assignedPROJECT NAMERegionally-based Assessment of Persistent

Toxic Substances

**DURATION** 1 April 2000-31 March 2002

IMPLEMENTING AGENCY United Nations Environment Programme

**EXECUTING AGENCY**UNEP Chemicals **REQUESTING COUNTRY**Global - Not applicable

ELIGIBILITY Not Applicable
GEF FOCAL AREA International Waters

**GEF Programming Framework** Contaminant-Based Operational Program # 10

#### 2. SUMMARY

The overall objective of the project is to deliver a comprehensive regionally based assessment of the damage and threats posed by persistent toxic substances, and to evaluate and agree the priorities between chemical related environmental issues at the regional level in order to focus subsequent interventions on the most important and pressing issues. The twelve Regional Reports will include assessment of the sources of persistent toxic substances in the environment, their concentrations and impact on biota, their transboundary transport, and an assessment of the root causes of the problems and capacity to manage these problems. Consolidation of the results of the regional analyses will provide an assessment of global priorities. The results of the assessment will be widely disseminated via the World Wide Web and other media.

# 3. Costs And Financing (Million US\$)

 GEF: Project
 :
 2.39 US\$

 PDF-B
 :
 0.34 US\$

 Executing Agency Costs
 :
 0.27 US\$

 Subtotal GEF
 :
 3.00 US\$

**Co-financing: PDF-B (all sources)** : 0.14 US\$ **UNEP** (in kind) 0.02 US\$ **Experts** 0.20 US\$ Germany 0.42 US\$ **Switzerland** 0.05 US\$ **Basel Convention** 0.08 US \$ To be identified 1.08 US \$ **Subtotal Co-financing** 1.99 US\$

Total Project Cost : 4.99 US\$

**4. IA CONTACT** Mr. Ahmed Djoghlaf, Executive Co-ordinator,

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Kenya, Tel: +254 2 624166, Fax: +254 2 624041,

Email: Ahmed.Djoghlaf@unep.org.

#### LIST OF ACRONYMS

AMAP Arctic Monitoring and Assessment Programme

EA Executing Agency

FAO Food and Agricultural Organisation

GEF Global Environment Facility

GIWA Global International Waters Assessment

IA Implementing Agency

IGO Intergovernmental organisations

IFCS Inter-Governmental Forum on Chemical Safety
INC Intergovernmental Negotiating Committee

IOMC Inter-Organisational Programme for the Sound Management of Chemicals

IPCS International Programme on Chemical Safety

LRTAP Long-Range Transboundary Air Pollution Convention

NGOs Non-Governmental Organisations

OP Operational Programme

PDF Project Preparation and Development Facility

POPs Persistent Organic Pollutants
PTS Persistent Toxic Substances
RBA Regionally based assessment

UN United Nations

UNCED United Nations Conference on Environment and Development

UNECE United Nations Economic Commission for Europe

UNEP United Nations Environment Programme

WHO World Health Organisation

# SECTION 2. BACKGROUND AND PROJECT CONTRIBUTION TO OVERALL SUB-PROGRAMME IMPLEMENTATION

# 2.1 Background and Context

- 2.1.1 The introduction of xenobiotic chemicals that are generally referred to as "persistent toxic substances" (PTS) into the environment and resulting effects is a major issue that gives rise to concerns at local, national, regional and global scales. Many of the substances of greatest concern are organic compounds characterised by persistence in the environment, resistance to degradation, and acute and chronic toxicity. In addition many are subject to atmospheric, aquatic or biological transport over long distances and are thus globally distributed, detectable even in areas where they have never been used. The lipophilic character of these substances causes them to be incorporated and accumulated in the tissues of living organisms leading to body burdens that pose potential risks of adverse health effects. Toxic chemicals, which are less persistent but for which there are continuous releases resulting in essentially persistent exposure of biota, raise similar concerns. The persistence and bioaccumulation of PTS may also result in increase over time of concentrations in consumers at higher trophic levels, including humans.
- 2.1.2 A sub-group of the persistent toxic substances are the "persistent organic pollutants" (POPs) identified by the international community for immediate international action<sup>1</sup>. These chemicals have serious health and environmental effects, which may include carcinogenicity, reproductive impairment, developmental and immune system changes, and endocrine disruption thus posing a threat of lowered reproductive success and in extreme cases possible loss of biological diversity.
- 2.1.3 Following the recommendations of the Intergovernmental Forum on Chemical Safety<sup>2</sup>, the UNEP Governing Council decided in February 1997 (Decision 19/13 C) that immediate international action should be initiated to protect human health and the environment through measures which will reduce and/or eliminate the emissions and discharges of an initial set of twelve persistent organic pollutants (POPs). Accordingly an Intergovernmental Negotiating Committee (INC) was established with a mandate to prepare an international legally binding instrument for implementing international action on certain persistent organic pollutants. To date four<sup>3</sup> sessions of the INC have been held. The GEF Secretariat and the GEF Council have indicated their willingness for the GEF to serve as the financial mechanism for the Convention should the contracting parties so desire.
- 2.1.4 Persistent toxic substances can be manufactured substances for use in various sectors of industry, pesticides, or by-products of industrial processes and combustion. To date, their scientific assessment has largely concentrated on specific local and/or regional environmental and health effects, in particular "hot spots" such as the Great Lakes region of North America or the Baltic Sea. In response to the long-range atmospheric transport of PTS, instruments such as the Convention on Long-Range Transboundary Air Pollution (LRTAP) under the auspices of the UN Economic Commission for Europe (UNECE) have been developed. The Basel Convention regulates the transboundary movement of hazardous waste, which may

The initial twelve POPs are: aldrin, chlordane, DDT, dieldrin, endrin, heptachlor, hexachlorobenzene, mirex, toxaphene, polychlorinated biphenyls, dioxins and furans.

<sup>&</sup>lt;sup>2</sup> Conclusions of the IFCS sponsored Experts Meeting on POPs and final Report of the *ad hoc* working group on POPs, Manila, 17-22 June 1996, "Persistent Organic Pollutants: Considerations for Global Action".

At the time of the submission of the project proposal, October 1999.

include PTS. Some PTS are covered under the recently adopted Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade. FAO has initiated a process to identify and manage the disposal of obsolete stocks of pesticides, including PTS, particularly in developing countries and countries with economies in transition.

- 2.1.5. A number of regional organisations have already conducted assessments of persistent toxic substances. Where they exist, the present project will rely on these assessments which include the Quality Status of the North East Atlantic completed by the Oslo and Paris Commission, the State of the Arctic Environment completed by the Arctic Monitoring and Assessment Programme, the State of the Marine Environment of the Baltic of the Helsinki Commission, and the work accomplished in the European Union through the Dangerous Substances Directive.
- 2.1.6. There is a need for a scientifically-based assessment of the nature and scale of the threats to the environment and its resources posed by persistent toxic substances that will provide guidance to the international community concerning the priorities for future remedial and preventive action. The assessment will lead to the identification of priorities for intervention, and through application of a root cause analysis will attempt to identify appropriate measures to control, reduce or eliminate releases of PTS, at national, regional or global levels (Annex D).
- 2.1.7 The actual priorities for action within each region may not be the same, reflecting differences between regions in terms of economic development, agricultural and industrial production, climatic, geographic and social and cultural conditions. Therefore, the assessment will be based on an analysis of conditions in each region, using information available from a variety of sources and following common methods and approaches.
- 2.1.8 The GEF Contaminant-Based Operational Programme makes direct reference to contaminants that are so persistent that they can be considered to be "global contaminants" and it states that "The GEF may support activities that help to characterise the nature, extent and significance of these contaminants and support the agreed incremental costs of processes and measures that demonstrate prevention of reduction of releases in recipient countries". This project would provide an objective and rapid evaluation of the priorities within regions and between chemical related environmental problems that will enable the GEF to focus subsequent activities within OP 10 on the most important and urgent issues.

# 2.2 Project contribution to Overall Sub-programme Implementation –Rationale and Objectives

- 2.2.1. The objective of the project is to deliver a measure of the nature and comparative severity of damage and threats posed at national, regional and ultimately at global levels by PTS. This will provide the GEF and also UNEP with a science-based rationale for assigning priorities for action among and between chemical related environmental issues, and to determine the extent to which differences in priority exist among regions.
- 2.2.2. The outcome of this project will be a scientific assessment of the threats posed by persistent toxic substances to the environment and human health. The activities to be undertaken in this project comprise an evaluation of the sources of persistent toxic substances, their levels in the environment and consequent impact on biota and humans, their

modes of transport over a range of distances, the existing alternatives to their use and remediation options, as well as the barriers that prevent their good management.

2.2.3. Additional possible outcomes of the project are: a greater awareness of PTS related environmental problems in developing countries; opportunities for bilateral or multilateral action; network building and co-operation within and between regions; stimulus for research through the identification of data gaps; support to international conventions, such as the Rotterdam Convention, the UNECE LRTAP convention, Regional Seas Agreements or the future POPs Convention. The project will make contributions to the Global International Waters Assessment (GIWA) that is being carried out by UNEP with GEF funding.

#### **SECTION 3. NEEDS AND RESULTS**

#### 3.1 Needs

The UNEP Governing Council in its decision 19/13C on POPs, concluded that international action is required to reduce the risks to human health and the environment arising from the releases of the 12 specified POPs. The Governing Council further identified the need to develop science-based criteria and a procedure for identifying additional POPs as candidates for future international action and recognized the need to develop an instrument that would take into account differing regional conditions.

The project aims at meeting these and other needs, particularly in supporting the global negotiations in making regional assessments of the damages and threats posed by persistent toxic substances. By broadening the scope from the twelve POPs included in the UNEP GC Decision 18/32 this project will assist UNEP and governments in better defining priorities beyond the present negotiations.

#### 3.2 Results

The project relies upon the collection and interpretation of existing data and information as the basis for the assessment. No research will be undertaken to generate primary data, but projections will be made to fill data/information gaps, and to predict threats to the environment. The proposed activities (timetable for implementation Table 1) are designed to obtain the following expected results:

Identification of major sources of PTS at the regional level;

Impact of PTS on the environment and human health;

Assessment of transboundary transport of PTS;

Assessment of the root causes of PTS related problems, and regional capacity to manage these problems;

Identification of regional priority PTS related environmental issues; and

Identification of PTS related priority environmental issues at the global level.

# 3.3 Assumptions to achieve results

The establishment of a broad and wide-ranging network of participants involving all sectors of society is critical for the collection and subsequent evaluation of sufficient and adequate data on which to base regional priorities. Close cooperation with other intergovernmental organizations such as UNECE, WHO, FAO, IPCS, UNDP, WORLD BANK, GESAMP and others is essential.

# SECTION 4. OUTPUTS, COMPONENTS, WORKPLAN AND TIMETABLE, BUDGET AND FOLLOW-UP

# 4.1 Outputs

- i) Establishment of a network of PTS experts from various sectors of academia, government, relevant international organisations, NGOs and the private sector.
- ii) Establishment of an adequate management and co-ordination structure with a Project Manager, Regional Co-ordinators, and a Steering Group.
- iii) Questionnaires to collect national information on PTS and guidelines on source inventories and evaluation of environmental concentrations and impact assessment.
- iv) Twelve comprehensive Regional Reports including a list of regional priorities.
- v) A Global Report, which will extract and highlight the major issues from the Regional Reports e.g. commonalities and cross-cutting issues, give a list of priority issues on a regional and a global basis, and suggest interventions to address the problems identified. The Global Report will provide guidance to the GEF for further actions.

### 4.2 Components

COMPONENT 1: CO-ORDINATION AND MANAGEMENT

#### **Establishment of the Global Network**

- 4.2.1 A Network of participating institutions and individuals will be established for the Regionally-based Assessment. In addition to utilising the experts and institutions involved in the PDF-B phase, UNEP Chemicals will solicit inputs from relevant government representatives such as UNEP national Focal Points, delegates to the INC POPs negotiations, UNEP POPs Focal Points, and IFCS Focal Points regarding national experts or institutions with relevant expertise who could participate in the project. The contact points will be asked to be as specific as possible, for example which government department (and name of resource person) should be asked about use of pesticides or which University(ies) (and name of Department/team leader) should be asked about levels of contaminants in environmental compartments. A minimum of one contact point will be identified per country, but where UNEP has more than one contact in the country, they all will be asked to contribute details of experts.
- 4.2.2. Scientists will also be contacted through recommendation of the Steering Group and through scientific societies. Public interest NGOs concerned with the elimination of persistent toxic substances will be contacted, in particular through the global network provided by the International POPs Elimination Network. Industry will be invited to participate through contacting directly, major companies and through trade associations (*vide* Annex I).
- 4.2.3. For implementation of the project, the globe has been divided in twelve regions (Annex F). These regions represent a compromise between the need for internally coherent groupings of countries with similar characteristics and the need to keep the number of regions small for financial and management considerations (see Annex I).

4.2.4. The output of this activity is the establishment of a network of PTS experts from various sectors of academia, government, relevant international organisations, NGOs and the private sector.

# **Technical Co-ordination and Management of the Project**

- 4.2.5. Regional Co-ordinators for each region (Terms of Reference Annex H) will be identified by UNEP Chemicals from the global Network, and endorsed by the Steering Group at its first meeting. Decisions will be based on the list of experts provided by the Government contact points in order to facilitate country buy-in and ownership of the project. The Regional Co-ordinator will be responsible for organising the work at the regional level and will be the principle editor of the Regional Report. The Regional Co-ordinators will require infrastructure and logistic support from their institutions that will be assured through contractual arrangements between the Executing Agency and the host institution.
- 4.2.6. In each region, a Regional Team of 4-5 members (excluding the Regional Coordinator) will be constituted from the wider regional Network. Members drawn from government, academia, public interest NGOs or industry will be identified by UNEP Chemicals in consultation with the presumptive Regional Co-ordinators, and endorsed by the first Steering Group meeting. Individual Regional Team members will be responsible for coordinating specific components of the Regional Reports. Collectively, the Regional Team will assemble and finalise the Regional Report.
- 4.2.7. A Project Manager will be appointed at UNEP Chemicals (Terms of Reference Annex H). The Project Manager will act as Secretary for the Steering Group and will be responsible for: managing all aspects of project execution; and dissemination of results and progress, including maintaining a web site. The Project Manager will convene meetings of the Regional Co-ordinators as and when necessary.
- 4.2.8. The Steering Group (Terms of Reference Annex H) will comprise UNEP Chemicals, UNEP-GEF Co-ordination Office, UNEP Division of Environmental Assessment and Early Warning, UNEP/GPA Co-ordination Office, the GEF Implementing Agencies UNDP and the World Bank, a member of the Scientific and Technical Advisory Panel, the Global International Waters Assessment Core Team, environmental NGOs such as the World Wildlife Fund for Nature, Industry, independent scientists, and other UN Agencies (including WHO, FAO and UNECE) The participation of non-UN members in the Steering Group will be funded from the project budget.
- 4.2.9. The Steering Group will advise the Project Manager, promote buy-in to the project from the organisations involved and co-ordinate with other projects inside and outside GEF to avoid duplication and overlap. The Steering Group will suggest corrective actions, if necessary.
- 4.2.10. The Steering Group will meet four times:
- 1. At the onset of the project, to review and endorse the management and work plan; to review and endorse the Regional Co-ordinators and other Regional Team members; and to approve the release of a portion of the funds available under the "expert consultants" budget line for those regions comprising only GEF-eligible countries, and where it is already apparent that additional support to the Regional Teams is necessary.

- 2. Month 7 in the project, immediately after the phase of Country Level Contributions, to review progress in implementation, resolve difficulties and suggest corrective actions as needed; and decide on further budget allocation from the "expert consultants" line for those regions where the Country Level Contribution phase have shown that additional support to the Regional Teams will be necessary, and for Incremental Costs case studies<sup>4</sup> (the meeting may be attended by some of the Regional Co-ordinators).
- 3. Month 12 in the project, to review progress in implementation, resolve difficulties and suggest corrective actions as needed; and identify possible needs for targeted research (the meeting may be attended by some of the Regional Co-ordinators).
- 4. At the end of the project, to assess lessons learnt and to recommend follow-up activities within and outside the GEF.
- 4.2.11. A meeting of the Regional Co-ordinators will take place after the first Steering Group meeting in order for the Project Manager to brief them further about the project, and to discuss operational matters.
- 4.2.12. The output of this activity will be the establishment of an adequate management and co-ordination structure with a Project Manager, Regional Co-ordinators, and a Steering Group in place.

# COMPONENT 2: DEVELOPMENT OF GUIDELINES

4.2.13. During the PDF-B phase, strategies for the assessment of priority chemicals were developed, including guidance for inventorying sources, screening chemicals for hazards and risk, and for priority setting among chemicals. Based on the outcomes of the scientific and technical workshops held during the PDF-B phase, guidelines will be drafted prior to the commencement of project activities in April 2000, on methods for undertaking source inventories, the evaluation of environmental concentrations, and assessment of impacts. These will be developed with a view to harmonising and facilitating the evaluation of the information provided on a country or regional level. Guidance on other aspects of the regional work will be developed as appropriate.

4.2.14. Based on the guidelines, and on the reports of the scientific and technical workshops, detailed questionnaires will be drafted to collect information on the sources, levels and effects, and transboundary movements of PTS, and on the barriers to their sustainable management. The draft guidelines and questionnaires will be circulated for comments and input, in particular from the individuals identified as possible participants in the Regional Teams. These documents will be translated into the six UN languages to facilitate the information gathering on a national level.

studies can be used subsequently to make informed estimates of costs in similar situations elsewhere.

In the case of Incremental Costs calculations, a number of selected case studies of priority issues such as the costs of disposal of stockpiles of mixtures of obsolete and banned pesticides, or the costs of reducing or elimination particular types of stack emission of dioxins will be undertaken. The results of these case

Table 1: Timetable for implementation

Timetable for implementation	Mo	nth	s af	ter s	igna	ature	e of	proj	ect	doc	ume	nt												
COMPONENTS / Activities	1	2	3	4	5	6	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23
<b>Establishment of the Network</b>																								
Co-ordination and Management																								
Steering Group meetings	*						*					*											*	
Regional Co-ordinators meeting		*																						
The Regional Assessments																								
Country level contributions																								
1st regional team meeting			*																					
Sources and concentration																								
Technical WS: sources and concentration											*													
Impact and transport																								
Technical WS: impact and transport															*									
2nd regional team mtg. (report draft 1)															*									
Capacity and root causes																								
Regional priority setting meeting																	*							
3rd regional team mtg. (report draft 2)																	*							
Final review of report, and final draft																		#						
Global Synthesis																								
1st draft of global report																				#				
Task Force on alternatives/remediation																					*			
Global priority setting meeting																					*			
2nd draft of global report																					1	#		
Review of global report, and final draft																								7
Dissemination of Products																								

• meetings / workshops; # successive drafts

Table 1: Timetable for implementation

	_ 20	000			20	001											20	02											20	03			
COMPONENTS / Activities	S	О	N	D	J	F	M	A	M	J	J	A	S	О	N	D	J	F	M	A	M	J	J	A	S	О	N	D	J	F	M	<b>A</b> ]	MJ
Co-ordination and Management																															П	T	
Steering Group meetings																																	
Establishment of the Network																																	
Regional Co-ordinators meeting																																	
Development of database																															M		
Development of translated questionnaires																															П	T	
The Regional Assessments																															П	T	
Country level contributions																																	
1st regional team meeting																															M		
Collation of Sources and concentration																															M		
2 <sup>nd</sup> Steering Group Meeting																															M		
Technical WS: sources and concentration																															П		
Collation of impact and transport																																	
Technical WS: impact and transport																																	
3 <sup>rd</sup> Steering Group Meeting																																	
2nd regional team mtg. (report draft 1)																																	
Capacity and root causes																																	
Regional priority setting meeting																																	
3rd regional team mtg. (report draft 2)																																	
Final review of report, and final draft																																	
Global Synthesis																															M		
Preparation of 1st draft of global report																																	
4th Steering Group Meeting																															П	T	
Task Force on alternatives/remediation																															$\Box$	T	
Global priority setting meeting																																T	
2nd draft of global report																																T	
Dissemination of Products																																	

4.2.15. The output of this component will be questionnaires to collect national information on PTS and guidelines on source inventories and evaluation of environmental concentrations and impact assessment.

#### COMPONENT 3: THE REGIONAL ASSESSMENTS

- 4.2.16. The bulk of activity at the regional level is to collect and interpret existing data and information as the basis for the assessment and to produce the Regional Reports. The expert workshops convened during the PDF-B phase have indicated that some data exist for all regions, although both the quality and extent of data varies from region to region. Where information or data regarding the fate of substances in the environment are lacking or inadequate, projections will be made and scenario build through simple modelling. The absence of readily available information on sources and transport of PTS in many developing countries often reflects the difficulty of assembling such information from unpublished government sources rather than the fact that the information does not exist. By ensuring the establishment of as comprehensive a set of contacts at the country level as possible, the project will attempt to redress this problem. It is envisaged that specialist, expert assistance from outside the region concerned, may need to be provided to some Regional Teams. This will help to build indigenous capacity, interest, and awareness about PTS issues in the regions.
- 4.2.17. The regional assessments will be implemented in two phases, a first phase relying on e-mail communications between members of the Network, and a second phase consisting of technical meetings where scientists from the region present and discuss their individual work, and where the synoptic discussion documents prepared by the Regional Team are presented, discussed and revised as appropriate. A draft of the chapter headings for the Regional Reports is presented in Annex G. These will be reviewed by the members of the Regional Teams and may be further refined at the 1<sup>st</sup> Steering Group meeting and as the project proceeds.
- 4.2.18. The Regional Co-ordinator will be the principle editor for the Regional Report, assisted by the Regional Team. The Report will be drafted on the basis of:
  - 1. contributions from all individuals within the Network, addressed to the Regional Coordinators:
  - 2. a series of regional technical Workshops to review the regionally available data and information collected by experts from the region;
  - 3. a series of discussion papers setting the scene for these workshops; and
  - 4. a "Priority Setting" meeting which will bring together a wide range of stakeholders to prioritise the issues and discuss their root causes.
- 4.2.19. The Reports (Annex G) will contain *inter alia* the following components:
  - 1. source characterisation;
  - 2. concentration in the region, toxicological and ecotoxicological characterisation;
  - 3. assessment of major pathways of contaminant transport within, and into and out of the region;
  - 4. preliminary assessment of the regional capacity and needs to manage PTS and identification of barriers that prevent their reduction or elimination and their release in the environment.

#### Country level contributions phase.

4.2.20. The guidelines and the questionnaires prepared in advance of commencement of the full project will be distributed to the country experts identified by the government contact points and other sources as described in paragraphs 13&14. It is expected that there will be a number of experts/organisations contacted in each country. Questions that are likely to be directed to a specific government department, for example amount of pesticides imported, would be directed to one resource person identified in the relevant ministry, in order to avoid duplication of effort. On the other hand, information and data regarding levels of PTS from research and monitoring activities, for example, might be sought from a number of organisations and independent experts within each country. In addition, the regional offices of WHO, of the Intergovernmental Oceanographic Commission (IOC) and FAO will be asked to contribute appropriate data and information to the Regional Teams regarding persistent toxic substances, environmental and human health.

4.2.21. Six to nine months will be allocated for the bulk of primary data gathering, although it is anticipated that additional data and information will continue to be assembled throughout the life of the project to ensure as comprehensive a coverage of existing information as possible. During this period the members of the Network at the regional (or sub-regional) level will be communicating mostly by e-mail, with continuous exchange between individuals at the country level, and between countries and the Regional Co-ordinators. It is recognised however, that the phase of primary data and information assembly may overlap considerably with subsequent analytical and synthetic activities in regions where expertise is limited or the data scattered. The data/information will be assembled by the individual team members according to responsibilities assigned during the first Regional Team meeting. Overall co-ordination and synthesis of the data and information will be the responsibility of the Regional Co-ordinator.

4.2.22. At the end of this period, and in anticipation of the second Steering Group meeting, the Regional Team will take stock of available resources in the region as well as potential problems and possible additional resource requirements needed to proceed with the assessment. Specific expertise necessary for the evaluation process may be required, or, where there are no data for PTS in the region, models could be applied to assess the potential threats to the environment.

#### **First Regional Team Meeting**

4.2.23. The Regional Team Meetings will comprise the Regional Co-ordinator and the Regional Team members. The first Regional Team meeting will be held immediately following the first meeting of regional co-ordinators, to organise the work at the regional level, and in particular to: finalise the overall workplan and timetable; identify potential collaborators; assign responsibility for co-ordination of the various components of the assessment; and to agree upon the agendas for, and participation in, the technical workshops.

#### Assessment of PTS sources and PTS concentration in the environment

4.2.24. Two individual members of the Regional Team will co-ordinate the assembly and review of information and data related to assessing sources of PTS and their concentration in the environment respectively. They will rely on a number of sources, including the guideline documents and PDF-B workshop reports, the country level questionnaires, and unpublished

sources. Modelling and additional consultant assistance may be used at this stage where data are lacking. The report will be submitted as a discussion paper to the following technical workshop.

4.2.25. A technical workshop of 6 days duration, and with a minimum of 10 participants (excluding the Regional Team members, or other participants covering their own costs), will be convened on sources of PTS and concentrations in the environment. Participants will be regional expert members of the Network drawn from government, academia, industry and environmental NGOs invited to present and discuss their own work in these fields. The workshop reports on sources and on concentration in environmental compartments will build on the discussion documents and will make up the first draft of the Regional Reports for these areas. All participants to the workshop will be invited to review this draft.

#### Assessment of (eco)toxicological impact of PTS and transboundary transport

4.2.26. Two individual members of the Regional Team will be given responsibility for preparing the components of the Regional Report dealing with assessing the (eco)toxicological impact of PTS on the environment and their transboundary transport respectively. They will rely on a number of sources, including the guideline documents and PDF-B workshop reports, the country level questionnaires, effects databases, and unpublished sources. Additional consultant assistance may be used at this stage where experience is lacking. The report will be submitted as a discussion document to the following technical workshop.

4.2.27. A technical workshop of 6 days duration, and with a minimum of 10 participants (excluding the Regional Team members, or other participants covering their own costs), will be convened on (eco)toxicological impacts of PTS and transboundary transport. Participants will be regional experts members of the Network drawn from government, academia, industry and environmental NGOs invited to present and discuss their own work in these fields. The workshop reports on (eco)toxicological impact on the environment and on transboundary transport will build on the discussion documents and will prepare the first draft of the Regional Reports for these areas. All participants to the workshop will be invited to review this draft.

# **Second Regional Team Meeting**

4.2.28. The Regional Team will meet, back to back with the technical workshop, and will collate and finalise the chapters of the draft Regional Reports based on the discussion documents and reports of the Technical Workshops. This draft will be submitted as a discussion document for the Regional Priority Setting Meeting. The Regional Team meeting will discuss and agree the agenda and list of participants for the Regional Priority Setting meeting.

# Assessment of regional capacity and needs to manage PTS, and the root causes of the problems

4.2.29. One individual from the Regional Team will be responsible for: collecting and collating information regarding the regional capacity to manage PTS; and analysing the root causes of the problems. They will prepare an overall report that will be submitted as a discussion paper to the Regional Priority Setting Meeting.

#### **Regional Priority Setting Meeting**

- 4.2.30. A Regional Priority Setting Meeting of approximately 30 participants lasting five days will be organised in each region. Sufficient funding is available to ensure the broadest possible participation of all relevant sectors. Participants will include government experts, scientists, industry and public interest NGOs.
- 4.2.31. The purpose of this meeting is to discuss the draft Regional Report, which will be finalised after this meeting. This activity will establish a list of priority regional chemical related environmental issues and their root causes. The meeting will also consider the capacity and needs of governments in the region to manage PTS, and will seek to identify examples of alternatives to PTS chemicals that have been successfully applied in the region as well as best practices and techniques to minimise releases of PTS into the environment, and the barriers to their adoption.

#### **Third Regional Team Meeting**

- 4.2.32. A third Regional Team Meeting will be held back-to-back with the Regional Priority Setting Meeting, to finalise the draft Regional Report. Participants to the Priority Setting Meeting, and other members of the regional Network will subsequently be invited to review the Report.
- 4.2.33. The main output will be a comprehensive Regional Report (A draft outline of which is provided in Annex G), including a list of regional priorities.

COMPONENT 4: GLOBAL SYNTHESIS

#### **Comparative Review and Synthesis of Regional Reports**

4.2.34. The Global Report will be written by the Regional Co-ordinators, assisted as needed by other experts from the Network, under the overall co-ordination of the Project Manager. The majority of this work will be conducted via electronic exchange of documents and views and the Project manager shall synthesise the inputs to produce the first draft of the Global Report.

#### Global Priority Setting Meeting and Outline of Alternatives/Remediation Options

- 4.2.35. A small-sized Task Force of 5-10 experts, including as appropriate Regional Coordinators and Team Members, will prepare in advance of the Global Priority Setting meeting a review paper evaluating the use and effectiveness of solutions to the identified priority issues, *e.g.* evaluate alternatives to PTS chemicals and identify options for remediation. This background paper will be discussed and amended during the course of the meeting as a first step towards defining best practices to be encouraged in future interventions.
- 4.2.36. The first draft of the Global Report will be discussed during a five days Global Priority meeting of approximately 30 participants, with the participation of the Regional Co-ordinators together with other members of the Network representing the broadest possible participation of the sectors involved with PTS. The meeting will review and evaluate the environmental issues related to persistent toxic substances identified at the regional level and consider and endorse or amend as appropriate, the relevant sections of the draft Global

Report. The outcome will be a set of agreed priorities on a global basis in terms of issues, chemicals, and regions.

4.2.37. The output of this component will be a Global Report, which will extract and highlight the major issues from the Regional Reports e.g. commonalities and cross-cutting issues, give a list of priority issues on a regional and a global basis, and suggest interventions to address the problems identified. The Global Report will provide guidance to the GEF for further actions.

#### RISKS AND SUSTAINABILITY

- 4.2.38 The Logical Framework Matrix (Annex B) details the project-related risks and assumptions. The first risk to the project is that, in some regions, the quantity and quality of data available are not sufficient to draw conclusions. However, it is believed that there will be enough information collected on potential sources to be able to assess the potential for damage to the environment in all regions, through simple modelling and projection of the fate of chemicals in the countries/regions concerned.
- 4.2.39. The second risk to the project is that the different stakeholders in the regions do not participate to the project, and that they do not accept the conclusions of the Assessment. These risks are minimised by the appointment of Regional Co-ordinators from within the region, located in regional institutions, and by ensuring that the Regionally-based Assessment Network is as wide as possible.
- 4.2.40. The Regionally-based Assessment is a one-off exercise. Thus the question of sustainability is not relevant here. However, it is expected that the project will catalyse PTS related activities in GEF eligible counties.

#### STAKEHOLDER PARTICIPATION AND IMPLEMENTATION ARRANGEMENTS

- 4.2.41. The primary stakeholders in this project are the Ministries of Environment, Agriculture, Health and Industry or the respective agencies involved with the management of chemicals, members of the public at large and non-governmental organisations, including various sectors of industry that use, produce, or dispose of, persistent toxic substances.
- 4.2.42. The implementation of the project will take place through a network of institutions and individuals, led by Regional Co-ordinators responsible for the various regional components, operating according to a common timetable (Table 1) and work plan.
- 4.2.43. The Arctic and the Antarctic regions present special cases. In the case of the Arctic, the Arctic Assessment and Monitoring Programme (AMAP) has already carried out an assessment of the State of the Arctic Environment including persistent toxic substances (AMAP Assessment Report: Arctic Pollution Issues, Oslo, 1998). There is, however, a need for reformatting the information in a form similar to the other Regional Reports, which will be done by a small team of scientists familiar with the AMAP assessment. In the case of the Antarctic, there is a limited amount of scientific data, and the work will be undertaken under the auspices of and in collaboration with, the Scientific Committee on Antarctic Research (SCAR). It follows that there will be no technical, priority setting, or Regional Team meetings for these two regions.

4.2.44. UNEP is the Implementing Agency for a number of PTS related GEF activities which will facilitate the synergy between these activities. Four countries in the Caribbean will produce National Reports on pesticides use, levels and impact in the environment that the Regional Team for this project will use. In each of the four countries, a National Working Committee comprising all relevant stakeholders will facilitate the identification of environmental NGOs and private sector representatives. Similarly, eight countries in Central America will produce National Reports on DDT, and create National Working Committees. The medium-sized project under preparation on PTS and Indigenous Peoples in Arctic Russia will generate data that are of direct relevance to this project. Finally, the PDF-B on the assessment of PTS national management needs complements this project by addressing national solutions to some of the problems that the present project may highlight.

#### INCREMENTAL COSTS AND PROJECT FINANCING

#### **INCREMENTAL COSTS**

4.2.45. The project will comprise assessments that are complementary to the baseline activities carried out by the various governments and research institutions world-wide. The project will provide a common framework for assessment and comparison of the various chemical related environmental issues across the world in order to identify those warranting priority attention within GEF OP 10. Such an assessment would not take place without GEF assistance. Accordingly, the project is fully complementary and the costs are eligible for GEF funding. Government co-funding will finance the parts of the global assessment that are carried out in non-GEF eligible countries.

4.2.46. This project complements rather than substitutes existing activities, since the existing global activities do not undertake a comprehensive overview as intended for the Regionally-based Assessment of Persistent Toxic Substances. The costs, where known, for existing global, sub-regional and regional projects identified have been estimated and are included as baseline activities (Annex A). Since no other organisation will undertake an assessment of the scope of the RBA in the foreseeable future, and since the entire GEF project is complementary, all costs can be considered incremental (Table 2).

Table 2: Incremental Costs of the Regionally-based Assessment

US \$ million	Baseline	Alternative	Increment
Global Environmental	0	4.99	4.99
Benefits			
Past activities contributing	30	30	0
to the baseline			
On-going activities	15	15	0
contributing to the baseline			
Total Costs	45	49.99	4.99

# 4.3 Work plan and timetable

Expected Date of Project Completion

Twentyfour months from GEF CEO approval. The preliminary timetable is presented in Table 1.

#### 4.4 Budget

### **Project Financing**

- 4.4.1. The overall GEF approved budget is presented in Table 3. The GEF funding will be used to support activities in those regions that are characterised by countries with developing economies or economies in transition. This document includes an initial allocation by region, reflecting the fact that weaker regions or more complex areas might benefit from additional resources. Global coverage of the Regionally-based Assessment will be ensured through the additional support of non-eligible countries through co-financing activities in developed regions. The Implementing Agency, UNEP, will provide in-kind support to the Project Manager, for World Wide Web dissemination of results, and for monitoring and evaluation.
- 4.4.2. Cash co-financing secured thus far amounts to approximately US \$ 1,465,000: US \$ 420,000 from Germany, to support activities in sub-Saharan Africa and South America; US \$ 200,000 from Australia to support activities primarily in South East Asia; US \$ 65,000 (400,000FF) from France; US \$ 30,000 from Canada to support the assessment of the Arctic Region; US \$1 50,000 from Sweden for least developed countries; US \$100,000 from Switzerland, for project co-ordination; and US \$500,000 from the USA. In order to complete the assessment it is estimated that a further US \$ 165,000 in cash co-financing will be required, which includes a commitment from GEF non-eligible countries to complete the assessment for those regions where GEF funds will not be expended. It is anticipated that the costs involved in these regions are likely to be small given the well studied nature of these regions and the availability of existing reviews and published sources. The remaining amount of co-financing will be forthcoming during the project implementation.
- 4.4.3. It is anticipated that in some regions where expertise in persistent toxic substances is weak the Regional Team might require assistance and/or specialist expertise, consequently funds have been allocated for this purpose in the budget. Plans for disbursement of these funds to the Regional Teams will be reviewed and endorsed by the Steering Group as part of the work plan.

A detailed UNEP format budget is provided in Annex K.

### 4.5 Follow-up

The follow-up to components 1-4 will hopefully be specific country-based, regional or sub-regional projects to address the priorities from this project.

Table 3: GEF Approved Budget In 000 US\$

Component		Co-financi	ng					
Activity	GEF	CASH				In-kind		Total
		Germany	Switzerland	Basel Convention	to be identified	UNEP	Expert time	
1. Co-ordination and Management								
4 Steering Group Meetings	-	-	30	-	10	-	-	40
1 Regional Co-ordinators Meeting	21	-	21	-	-	-	-	42
Project Manager	340	-	-	-	-	-	-	340
Travel Project Manager	50	-	-	-	-	-	-	50
Total	411	-	51	-	10	-	-	472
2. Development of Guidelines								
Translation	25	-	-	-	25	-	-	50
Total	25	-	-	-	25	-	-	50
3. The Regional Assessments								
Data gathering and synthesis, discussion papers,	510	400	-	80	60	-	200	1250
and Regional co-ordination								
3x10 Regional Workshops	580	20	-	-	660	-	-	1260
3x10 Regional Team Meetings	300	-	-	-	155	-	-	455
Expert Consultants	420	-	-	-	-	-	-	420
Total	1,810	420	-	80	875	-	200	3,385
4. Global synthesis								
Comparative review and synthesis of reports	-	-	-	-	30	-	-	30
Global priority setting meeting and alternatives	39	-	-	-	68	-	-	107
and remediation options								
Total	39	-	-	-	98	-	-	137
Dissemination								
Website activities	-	-	-	-	-	25	-	25
Regional Reports (printing, distributing)	76	-	-	-	44	-	-	120
Global Report (printing, distributing)	27	-	-	-	28	-	-	55
Total	103	-	-	-	72	25	-	200
Executing Agency Fee	274	-	-	-	-	-	-	274
PDF-B Including establishment of Network	340	-	-	-	-	60	75	475
Total	3,002	420	51	80	1080	85	275	4,993

#### SECTION 5. INSTITUTIONAL FRAMEWORK AND EVALUATION

#### 5.1 Institutional framework

This Internal Project will be implemented under the general guidance and direct supervision of the Director of the Division of Technology, Industry and Environment. The Director of Chemicals will be overall responsible for the formulation of internal and external project documents attached to this project.

All correspondence regarding substantive matters should be addressed to:

Mr. James B. Willis Director, Chemicals, UNEP 11-13, Chemin des Anémones CH-1219 Châtelaine Geneva, Switzerland Fax: 41 22 797 3460

With a copy to:

Mr. Ahmed Djoghlaf Executive Coordinator Attn. Persistent Toxic Substances Officer GEF Coordination Office, UNEP PO Box 30552, Nairobi, Kenya Fax: 254 2 624041

Correspondence regarding financial and budgetary matters should be addressed to:

Mr. E. Ortega Chief Budget and Funds Management Service, UNON P.O. Box 30552 Nairobi, Kenya Fax: 254 2 623755

With a copy to:

Mr. James B. Willis POPs Coordinator Director, Chemicals, UNEP 11-13 Chemin des Anémones CH-1219 Châtelaine Geneva, Switzerland Fax: 41 22 797 3460

Ms. Immaculate Njeru (Cc: Persistent Toxic Substances Officer) International Waters FMO GEF Coordination Office, UNEP PO Box 30552 Nairobi, Kenya Fax 254 2 624041

#### 5.2 Evaluation

The POPs Coordinator will maintain systematic overview of the implementation of the project by means of monthly project monitoring meetings or other form of consultation, as well as by regular quarterly and half-yearly progress reports. A terminal report and internal desk evaluation of the project will be carried out by the POPs Coordinator at the end of the project

#### SECTION 6. MONITORING AND REPORTING

# 6.1 Quarterly Progress Reports to the GEF

From September 1, 2000 and every three months thereafter (1 December, 1 March, 1 June) the Director, Chemicals will submit to the UNEP-GEF Coordination Office, using the formal given in Annex M, quarterly reports on the progress in project execution.

# 6.2 Half-yearly Progress Reports

Within 30 days of the end of the reporting period, the Director, Chemicals will submit to the UNEP-GEF Coordination Office with a copy to the Chief, Budget and Funds Management Services half-yearly progress reports as at 30 June and 31 December using the format given in Annex N.

#### **6.3** Mid-Term Evaluation

In mid-2001 a mid-term internal evaluation will be undertaken under the supervision of the UNEP-GEF Co-ordination Office to diagnose problems and suggest necessary corrections. It will evaluate the efficiency of project management, including delivery of outputs and activities in terms of quality, quantity and timeliness. The Steering Group will receive the outcome of the evaluation and discuss any required remedial action, if necessary. Final desk evaluation of the project will be undertaken by UNEP Chemicals according to UNEP approved Monitoring and Evaluation procedures. Evaluation of the overall performance of the project will be undertaken within the framework of the Monitoring and Evaluation Programme of the GEF Secretariat.

### **6.4** Final Report

Within 60 days of the completion of the project, the POPs Coordinator will submit a final report to the UNEP-GEF Coordination Office with a copy to the Chief, Budget and Funds Management Services, using the format given in Annex O.

#### 6.5 Substantive Reports

All substantive and technical reports will be submitted to the SPO International Waters, GEF Co-ordination Office, for clearance. Both the cover and title page of all substantive reports will carry the approved UNEP logo and the title "United Nations Environment Programme", and

acknowledge the Global Environment Facility (GEF) as the source of funds for the project. 10 Copies of all substantive and technical reports produced in accordance with the schedule of work will be submitted to the SPO International Waters, GEF Co-ordination Office.

#### **6.6** Financial Reports

UNOG will submit status reports of the allotment to UNEP on a monthly basis in accordance with the United Nations financial procedures.

# 6.7 Non-expendable equipment

UNEP Chemicals will maintain records of non-expendable equipment (items costing US\$ 1,500 or more as well as items of attraction such as pocket calculators) purchased with UNEP funds, and will submit as inventory of all such equipment to the Budget and Funds Management Service once a year, attached to the progress report submitted on 30 June. A final inventory of equipment will be submitted to the Budget and Funds Management Service, within 60 days of the completion of the project.

# 6.8 Responsibility for cost overruns

Chemicals Director is authorized to enter into commitments or to incur expenditures up to a maximum of 20 per cent over and above the annual amount foreseen in the project budget under any sub-budget line, provided the total cost of the UNEP annual contribution to the project is not exceeded. This may be done without prior authorization, but once the need for these additional funds becomes apparent, Chemicals Director shall inform, within thirty days, the Chief, Budget and Funds Management Services, about shifts made and these have to be reflected in a revision to the project document, not later than three months after the shifts have been made.

No commitment over and above the amounts authorized in the sub-allotments shall be entered into unless specifically authorized by UNEP.

# 6.9 Cash Advance Requirements

UNEP will issue sub-allotment to the Chemicals Office on a yearly basis for each project separately. The sub-allotment will be amended from time to time, based on project budget revision. The POP Coordinator will submit status of allotment reports to UNEP on a monthly basis in accordance with the United Nations financial procedures.

### 6.10 Publications

All publications must be produced/published, according to UNEP's publication manual with the approval of the UNEP Editorial Committee to ensure peer review of manuscripts, and distribution and marketing strategies. UNEP thereby affirms itself as copyright-holder of the said manuscripts.

# 6.11 Communications strategy

6.11.1. The 1<sup>st</sup> meeting of the Steering Group will review and finalize the communications strategy drafted by the Project Manager. The strategy takes into account both short-term and

long-term communication needs, *e.g.* a central clearing-house for long-term sensing of the sources, levels and impacts of PTS beyond the life span of the project, and/or regional clearing-houses in the institutions hosting the Regional Co-ordinators.

6.11.2. Copies of the project brief and other information documents have been made available, at display areas, to the delegates to the meetings of the INC for a POPs Convention. Delegates have provided feedback and input to UNEP Chemicals. A graphic presentation of the project is also available on the GEF PTS section of the UNEP POPs Homepage and is used at all technical and capacity building workshops on PTS related areas executed by UNEP Chemicals to increase awareness of the Regionally Based Assessment amongst Governments and NGOs. In addition, the Regional and Global Reports will be made available at relevant intergovernmental meetings.

6.11.3. The outputs of the Regionally Based Assessment will be made available to the public in general, to educational institutions, and to national and regional authorities. The Regional Reports and the Global Report will be widely disseminated in hard copy and electronically. In addition, a review will be prepared for the greater public and decision-makers. The database of all gathered information will be made freely available on the specially developed GEF PTS homepage for PTS projects linked to UNEP POPs Homepage on the World Wide Web, as well as an outline of the progress of the assessment with links to relevant information sources. A hard copy on paper or on CD-ROM will be available where there is no access to the Web.

Table 4: Budget In 000 US\$

Tuoie 4. Buagei		nds of US \$							
Dudget Line		nent 1+ 2(+PDF)	Compon	ent 3	Compo	nent 4	Project	total	
<b>Budget Line</b>	GEF	Cofinancing	GEF	Cofinancing	GEF	Cofinancing	GEF	Cofinancing	TOTAL
Personnel									
Project manager	28		198		114		340		340
International consultants	30		300		90		420		420
Regional Teams			510	740			510	740	1250
Workshops			880	835	39	68	919	903	1822
Training									
Equipment									
Travel	10		35		5		50		50
Miscellaneous									
Website activities		25						25	25
Translation	25					25	25	25	50
Publications			76	44	27	58	103	102	205
Other	21	31		20		10	21	61	82
Total for phase	114	56	1999	1639	275	161			
PDF	340	135					340	135	475
Executing agency fee	91		91		92		274		274
Total cost to GEF (+PDF)	545		2090		367		3002		3002
Total co-financing (+PDF)		191		1639		161		1991	1991
GRAND TOTAL (PDF + project									4993

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	Toxic Substances" November 1998 - October 1999 and Preparatory actions to
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# ANNEX A INCREMENTAL COSTS

#### BACKGROUND

The Regionally-based Assessment of Persistent Toxic Substances is comparable to the GEF funded Global International Waters Assessment in that it is a global assessment, albeit regionally-based, that relies on pre-existing national and regional data and information. Thus, much of the discussion of "Incremental Costs and Benefits of GIWA" is directly applicable to this project (Annex 10 of the GIWA project document).

The concept of Incremental Cost was developed in the context of national activities for which one can determine "domestic benefits" and "global benefits". The Regionally-based Assessment is global in scope and thus there are conceptual difficulties when attempting Incremental Cost calculations, since the direct national benefit of such assessments may be small or negligible.

The Regionally-based Assessment relies on past and on-going activities such as environmental monitoring in national or regional contexts, and research activities at the national level on environmental fate and effects. The costs of these past and on-going baseline activities upon which the Regionally-based Assessment builds can be estimated.

The Regionally-based Assessment complements these existing national and regional activities related to the assessment of the impact of persistent toxic substances on the environment. In addition, no other organisation is at present considering to undertake such an assessment, and the assessment would not take place without the GEF intervention, thus the entire cost of the Regionally-based Assessment can be considered incremental.

Whilst the entire project costs may be considered incremental, it should be noted however, that not all costs are eligible for GEF funding. To ensure a global scope the assessment requires the participation of donor countries in conducting assessments for those regions that contain countries that are not eligible for GEF support. Present indications are that the support required and detailed in the budget of the project brief (Table 3) will be forthcoming.

BASELINE: EXAMPLES OF PAST ACTIVITIES PROVIDING THE INFORMATION AND DATA UPON WHICH THE REGIONALLY-BASED ASSESSMENT WILL BE BASED

An illustration of the baseline costs of past activities on which the Regionally-based Assessment is dependant, can be made by examining the approximate costs of some regional and global programmes that address persistent toxic substances, as provided by the relevant co-ordinating bodies, or estimated:

AMAP: The cost of the first assessment done by the Arctic Monitoring Assessment Programme (AMAP) was US \$ 5 million. The total spent on persistent toxic substances can be estimated at US \$ 1.5 million.

IPCS: The International Programme on Chemical Safety provides hazard assessments on persistent toxic substances through their Environmental Health Criteria Documents, Concise International Chemical Assessment Documents, and through their monographs on pesticides evaluated by the Joint Meeting on Pesticide Residues. The biennial cost 1995-1997 of the programme is US \$13 million.

LRTAP: The Geneva Convention on Long-Range Transboundary Air Pollution under the auspices of the UN Economic Commission for Europe has a special monitoring and assessment programme (EMEP) part of which is spent on persistent toxic substances. The annual costs attributable to PTS are US \$ 0.5 million. In addition, the Parties to the Convention have national programmes of varying size which contribute to the LRTAP.

HELCOM: The Helsinki Commission runs a special programme on the marine environment of the Baltic Sea and prepares periodic assessments of the state of the environment in the Baltic Sea. The third assessment was published in 1996 and the fourth is ongoing. The annual costs for monitoring and assessment of POPs are approximately US \$ 1 million. This sum does not include the costs of national programs' contribution to the assessment.

Danube Regional Pesticide Study: Under a PHARE contract from the European Union Bulgaria has managed a project involving eleven riverine states to evaluate the risks of pesticides to humans and the environment during 1995 to 1997. The cost of the project was approximately US \$ 300,000.

NACEC: The North American Commission on Environmental Co-operation has been running since 1995 a programme on pollution and health including a sub-programme on the Sound Management of Chemicals. The annual costs of the part of this programme that addresses persistent toxic substances are approximately US \$ 400,000.

IJC: The International Joint Commission between Canada and the United States is continually assessing and monitoring persistent pollutants in the Great Lakes and along the US-Canadian border. The annual costs may be estimated to several million US \$.

The above are examples of the costs of different regional and global activities addressing persistent toxic substances, the information and data from which will contribute to the Regionally-based Assessment. A conservative estimate of the baseline of past activities on the basis of these examples would be in the order of US \$ 30 million (Table 2). This does not take into account national monitoring or research activities on which the Regionally-based Assessment will also directly rely. These could be conservatively estimated to be an order of magnitude greater. The consideration of the costs involved in stock taking: inventories, import/export figures, on which the Regionally-based Assessment will also rely would push this figure even higher.

Baseline: Ongoing Regional and Global Activities Contributing to the Regionally-based Assessment

Planned or ongoing activities that will contribute to the Regionally-based Assessment include:

IPCS assessments, GESAMP assessment of the State of the Marine Environment (1997-2002), the LRTAP, NAFTA/CEC, IJC and HELCOM activities, among others. An estimate of the costs of such activities would be approximately US \$ 15 million over the life of the project. Again, the national level monitoring and assessment activities that will contribute to the Regionally-based Assessment can be conservatively estimated to be at least an order of magnitude greater than this figure.

#### BENEFITS OF THE REGIONALLY-BASED ASSESSMENT

The Regionally-based Assessment is based upon the evaluation of information and data which, in most cases, have been gathered at the national level. The project will add value to these national activities by making this information available and by offering a mean of comparison within and between regions. The incremental benefits of the Regionally-based Assessment are based on this ability to put chemical related environmental issues into perspective, and thus to focus further actions of the GEF, partner agencies, and others to address the priority chemical-related environmental issues within OP 10.

Annex B LOGICAL FRAMEWORK MATRIX

SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	CRITICAL ASSUMPTION AND RISK
Overall Objective			
To complete one global and widely accepted and 12 regional assessments of Persistent Toxic Substances (PTS) issues, and priorities for action.	Adoption of the findings of the RBA by various entities, including the GEF and UNEP. Development of strategies for implementation.	Selection by the GEF and others of projects that address the priority issues identified by the RBA.	That selection of future priority areas and projects for interventions will be based on rational decision making. An associated risk is that decision making is distorted by sectoral interests or external influences.
Outcomes			
Improved knowledge and understanding of the threats posed by PTS to the environment, amongst decision makers, managers, and the public at large.	Adoption of the findings of the RBA at the national level.  Adoption, use, and promulgation of the findings of the RBA by NGOs and the media.	Change of management practices. Generation of highly focused GEF eligible projects by countries. Popular articles.	That conclusions and recommendations resulting from the project receive broad-base government acceptance.  That there is effective relay by civil society organisations to help disseminate the findings of the RBA.
Support to the future Convention on Persistent Organic Pollutants and other global or regional agreements.	The findings of the RBA are the basis for decisions.	Reports from meetings.	That conclusions and recommendations resulting from the project receive broad-base government acceptance.
Contribution to the Global International Waters Assessment.	The results of the RBA are generated in parallel to GIWA's analytical phase, and can feed into its predictive phase.	GIWA products taking into account the results of the RBA.	That good co-ordination is established between the two projects.
Results			
Review of the state of the environmental contamination and subsequent impact from PTS, and recommended priority issues at the global level.	One Global Report based on, and synthesising, the Regional Reports.	Report is published and distributed.	That there are indeed data already available, so that the assessment is not mere list of data gaps and research needs.
Identified options for action to remediate priority generic problems at regional scales.	The identified options are the basis for future GEF, UNEP, or others, actions.	GEF or other projects implement remedial options outlined by the RBA.	That the solutions proposed can be applied in GEF eligible countries.

SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	CRITICAL ASSUMPTION AND RISK
12 regional assessments of the state of knowledge of the contamination of the environment by PTS and subsequent impact, and recommended priority issues at the regional level.	Production of 12 Regional Reports.	Reports are published and distributed.	That there are indeed data already available, so that the assessment is not mere list of data gaps and research needs.
Components/Activities	D. 1	D. I.P. and a second of the second	None
Dissemination of products.	Results are disseminated widely, including to the public, decision-makers, managers, and NGOs.	Publication of reports, brochures, CD-ROM, films, radio programmes etc. Outcomes of the assessment are presented in the form of information documents/ briefing sessions organised in the margins of relevant intergovernmental meetings.	None
Component 4: Global priority setting meeting and outline of alternatives/remediation options.	Priority chemical related environmental issues are agreed upon.	Draft chapter of Global Report.	That the experts from different regions can agree on a set of priorities.
Component 4: Comparative review and synthesis of Regional Reports.	Global Report is produced according to workplan.	Draft chapter of Global Report.	That the Regional Reports are produced in an orderly and timely manner to permit their aggregation at the global scale.  That the Regional Reports are of comparable quality, permitting comparison and aggregation.
Component 3: Regional priority setting meetings and assessment of regional capacity and needs to manage PTS, and the root causes of the problems.	Priority chemical related environmental issues at the regional level are agreed upon. The barriers that prevent the adoption of reduction/elimination measures of PTS are discussed and best practices are identified.	Draft chapter of Regional Report.	That there is agreement between regional experts and government representatives.  That there is good co-operation and response from industry and other stakeholders.  That the association of governments and NGOs will work well.
Component 3: Assessment of (eco)toxicological impact of PTS and transboundary transport.	Impacts of PTS on the environment, including natural	Draft chapter of Regional Report.	That the physical data such as river flows are available and reliable.

SUMMARY	OBJECTIVELY VERIFIABLE INDICATORS	MEANS OF VERIFICATION	CRITICAL ASSUMPTION AND RISK
	resources, and human health, and their transboundary transport are assessed.		That there exist enough data that are reliable, and thus comparable between and within regions.
Component 3: Assessment of PTS sources and concentration in the environment.	Major regional sources of persistent toxic substances, and their levels in the environment, in the regions are assessed.	Draft chapter of Regional Report.	That no major sources are omitted and that emissions factors established in developed countries can be extrapolated.  That there exist enough data that are reliable, and thus comparable between and within regions.
Component 3: Country level contributions phase.	Regional Co-ordinators collect and synthesise the data submitted by individual countries.	Progress reports to UNEP by the Regional Co-ordinators.	That all major countries contribute and That the "right" country contact points are identified.
Component 3: Regional Team meetings.	Production of outputs according to workplan.	Meeting reports.	That outputs are delivered in a timely manner.
Component 2: Development of guidelines.	UNEP Chemicals, with support from experts, drafts guidelines and protocols for the assessment, including country questionnaires.	Publication of guidelines.	That the groundwork can be prepared during the last quarter of 1999, to ensure the prompt start of the project early in 2000.
Component 1: Establishment of the global Network.	A network of PTS experts including all stakeholders is established. Scientific institutions and societies, government focal points, Industry, International Organisations and NGOs are contacted.	Letters and e-mails are dispatched.	That the groundwork can be prepared during the last quarter of 1999, to ensure the prompt start of the project early in 2000.
Component 1: Technical co-ordination and management of the project.	Hiring of staff. Meetings of the Steering Committee.	Issuance of contracts. Publication of meeting reports.	That the groundwork can be prepared during the last quarter of 1999, to ensure the prompt start of the project early in 2000.

### ANNEX C STAP ROSTER TECHNICAL REVIEW

#### REGIONALLY-BASED ASSESSMENT OF PERSISTENT SUBSTANCES

I was asked to review this draft proposal and took receipt of an e-mail copy on Monday 4 October. After clarification of queries as to possible missing sections I was satisfied I had all the necessary documentation by 5 October. Having now carefully studied the draft proposal I have the following comments

#### General comments and overall assessment

The proposal is well written and, uncharacteristically, free of jargonistic phraseology. It does of course make use of a number of acronyms but these are defined from the outset and their use does simplify the reading of the draft proposal. I am a strong supporter of the concept that globally imposed standards and mechanisms for control are unlikely to serve equally well and effectively the needs of the world's different regions. This is not to say that the concept of world-wide restrictions on the release of certain particularly harmful substances is inappropriate. Rather, that the level of concern and the need for urgent and particularly stringent measures may differ from region to region. For example if concentrations of a particular substance are very high and obviously causing damage in one region it would be more appropriate to impose a stringent and immediate ban on use and release there than in a region where concentrations are lower and effects as yet are not detectable. In such a region restrictions on use and release could be introduced on a time-scale more appropriate to the needs of the area, taking account of the availability of suitable alternatives and the region's ability to apply the necessary level of remediation measures and controls.

I therefore regard the concept of the proposed project as sound *i.e.* that any assessment of persistent toxic substances ought to be regionally based. I further agree that regionally based assessments provide the countries of the region concerned with a role in defining the need for controls and therefore have a much greater chance of seeing them promptly and successfully reacting in an agreed and appropriate manner. That being said I have to say I feel a number of the regions are extremely large and whilst I note some are expected to operate as two halves in the early stages it is unclear to me which these are and whether that will be enough to ensure the necessary level of co-operation. I also have some reservations about the proposed time-scale which does not seem to me to allow sufficient time for data gathering and assimilation in the early stages and tends to underestimate the timescale under which people prepare and react to, draft documents and agree conclusions. These last concerns may be less valid if all concerned have their time dedicated to the project. However, given that some participants are expected to contribute on a nationally paid in-kind basis, this seems unlikely. I elaborate on these ideas in the more detailed comments that I provide below on a paragraph by paragraph and Annex by Annex basis.

4. As a further general comment I note a number of examples are given where consultation is proposed with organisations which have conducted assessments wholly or in part of toxic substances. There seem to me to be at least two notable exceptions and perhaps a third. The notable ones are OSPARCOM, which is currently in the final stages of assessing

the Quality Status of the entire northeast Atlantic. This assessment includes consideration of the inputs and effects of many of the PTS proposed for inclusion in the GEF study. The AMAP study, to which the project proposal does refer, is a component of that overall OSPARCOM Quality Status study, although it was initiated independently to start with. The second major omission is the EU which, through its Dangerous Substances Directive has carried out regionally based assessments of the problems posed by several of the listed PTS. Finally I believe the Athens based group running the Barcelona Convention has concluded, at least partial regionally based reviews for some of the PTS listed in the proposed project. I suspect also that IMO has useful data, at least for the human and aquatic species toxicity of some of the PTS concerned, through its assessments of the Hazards posed by Materials carried by Ships.

#### COMMENTS ON POINTS OF DETAIL

The following comments relate mainly to the need to clarify details in the project proposal and certain reservations as to, for example, time scale and the assumed ease of conducting certain tasks. Whilst they do not necessarily imply a delay to the project, let alone serious doubts as to its adoption, I do feel they require further consideration and clarification as soon as possible after the project is adopted and given approval to start.

Para 5 It should be recognised that the assessment could conclude some of the 12 presently designated PTS are wrongly so designated, or at least are already subject to (effective?) bans or restrictions on production and use.

Para 11 I agree the combination of NGO and Governmental sources is a good one, indeed it is almost essential as a means of ensuring extreme views are suitably balanced. I note in this context that WWF seems to get a particular stamp of approval and, whilst I do not disagree with that, I do feel GEF should be prepared for others to demand a seat at the table. This could pose difficulties, as groups become very inefficient as they become larger. Also in this paragraph reference is made on line 4/5 of use of 'other sources of information', a few examples of what is intended might help *e.g.* EU, OSPAR, MAP and IMO.

Para 13 I hope the UNEP Focal points referred to on line 3 will consult extensively at national level and not simply rely on their already established contacts.

In the same para I suggest additional sources of data in many countries would be Government laboratories and Agencies. Universities will be useful sources it is true but it would be advisable to ask them for data on their quality assurance procedures. This applies to all data sources of course but in my experience is particularly desirable for Universities, as they tend to utilise relatively unskilled student labour.

Para 14 I note the proposal to involve industry, good.

Para 21 I note UNEP Chemicals will consult experts. I assume they already have access to them but is the cost of consultation an additional cost or is it already included in the budget? Perhaps the experts are relied upon to give their time free, if so is this realistic these days?

Para 23 I note the expectation of infrastructure support, it will certainly be necessary and the expectation should be made a condition of the appointment.

Para 25 The Steering Group is already looking pretty large but I note there are no proposals to include Government representatives. I think there should be, though I realise the problem of agreeing which countries get a seat. It is hardly practicable to have all involved and perhaps a solution would be to have representation from a local intergovernmental body *e.g.* in my area EU, ODSPARCOM and HELCOM.

Para 32 Bullet 2 should make it clear that what is most required are regionally derived data and regionally appropriate test species.

Bullet 3 should make it clear that transport pathways into and out of the region are of equal interest.

Para 34 Having been involved in a recent assessment of the Celtic Seas (as part of the OSPARCOM Quality Status exercise), I have severe reservations as to whether 6 months is enough for the data gathering stage, especially if it is intended to draw on sources in several different countries rather than commissioning one individual to gather what is published (which frankly would not reveal all grey source material).

Para 35 I think it would be wise to hold a get together of each Regional Team early on. The purpose of such a meeting would be to clarify what is expected of the team members and their contacts. Failure to do is likely to lead to inaction by some and diverging actions by others. It would replace the first proposed meeting and include the activities currently proposed for that meeting

Paras 36-39 I assume these meetings and workshops are all at Regional level? That is not entirely clear and the matter should be clarified whether my assumption is correct or not.

Para 42 Whilst I applaud the intention of back to back meetings with relevant intergovernmental meetings I wonder how often that will be feasible and note the added complication of a second back to back meeting (*i.e.* 3 sequential meetings in all) proposal in para 44.

Para 46 Clear guidelines will be required here on the extent to which Regional Co-ordinators will be expected to work together in meeting(s) and at their home bases.

Para 47 This looks like being a big meeting. Is such a large group going to able to operate effectively? I would suggest the answer could only be yes if some clear proposals are drafted in advance by the Project Manger in consultation with the Regional Co-ordinators.

Para 57 Re the lack of obvious stake holders in the Antarctic region what about the countries with Research Bases in the area? Perhaps this is what is meant by reference to using a research institution?

Para 59 Note my earlier general comment about what the EU, OSPARCOM have already done. I suspect HELCOM may also claim to have done at least a partial RBA for some of the proposed PTS.

Table 2 Budget I do not feel qualified to comment on the adequacy or otherwise of the budget.

Annex A Para 4 Whilst this is true within the context of the GEF defined regions note my general comment and the specific one on para 59 re the activities of EU and OSPARCOM *etc.* 

Bulleted points page 18/19 I note no mention is made of the OSPARCOM Joint Monitoring Programme/Joint Monitoring and Assessment Programme or of MAP or of the developing European Environment Agency. These are in my view major omissions.

I endorse the final sentence of the final paragraph on Page 19 re national monitoring networks and their cost.

Annex B Assumptions and Risks page 22 last entry I think a further assumption is that the association of governments and NGOs will work well it may not.

Page 23 third entry. River flow data are in my experience highly questionable and data on concentrations even more so.

Annex D I am not sure I understand the inclusion of increased cost of navigational dredging and fish processing in the Social and Economic Impact box relative to Coastal, estuary and marginal seas. Nor do I understand why in Rivers and Lakes there is a potential impact on health status of humans but in groundwater the expression is potential human health effects. Is this simply due to two different drafters or an intentional distinction. If it is intentional what is the difference?

Annex E Aquaculture It should be noted that in addition to anti-foulants a range of chemicals is used to treat diseases and to prevent or get rid of harmful parasites such as salmon lice.

Annex G Re regions IV and V In which of them does the Atlantic coast of France, Spain and Portugal fall? That area has more in common with say UK and Ireland than the Mediterranean.

For Region IV the problems of the areas of Europe bordering the NE Atlantic are somewhat different and perhaps less serious than those around the Caspian or Black Sea and even perhaps the Baltic.

Regions VI and VII At least in the first of these, few countries are listed but presumably it is intended to deal with their Atlantic and Pacific coasts separately? Similarly I assume two sub-Regions for the African Region?

Annex H Section 3 I feel it is important to emphasise that the primary focus should be on regionally derived and regionally relevant data.

Sections 5 and 6 I feel are particularly sound.

Annex I The Project Manager is clearly going to be very busy. I do not envy the appointee their task. Somebody needs for example to give thought to what facilitating and identifying in Tasks (i) and (iv) in section 2 imply. I also question, in the same section, the wisdom of including task (vi), which I think is almost bound to end up with all 12 regions expecting help. Similarly the tasks listed under 4 could alone amount to a full time job. I would suggest (i), (ii), (vi) and (vii) are the most important and that the rest should be dropped.

Annex J I note no governmental representatives are proposed. Is this deliberate? See my earlier comment re para 25.

Annex L Para 2 does not specifically mention the Antarctic.

Final para See my earlier comment about local support being available, Para 23.

John E Portmann 7<sup>th</sup> October 1999.

## ANNEX C1 RESPONSE TO STAP/COUNCIL/IA COMMENTS REGIONALLY-BASED ASSESSMENT OF PERSISTENT SUBSTANCES

RESPONSE TO STAP REVIEW

The key issues raised by the reviewer were:

1) The regions are too large.

The delimitation and size of the regions were discussed during the PDF phase, and in particular at the Management and Planning workshop and the final steering group meeting. These discussions are reflected in the annex describing PDF-B results. The regional divisions represent a compromise between the need to group countries with similar characteristics and financial limitations. The transaction costs of regional co-ordination actions such as meetings whilst not directly related to the number of regions, certainly increases substantially as the number of regions is increased.

#### 2) The time-scale is too short.

The reviewer's concerns are noted with appreciation, and the time allocated to country level data collection has been expanded from six to nine months. It was recognised at the time of PDF-B approval, however, that this should be a rapid assessment that would complement the Global International Waters Assessment (GIWA) and the results of which would be available promptly. It is the intention of the Executing Agency to use unspent PDF money between the time of project brief submission and final Council approval, to prepare the groundwork for this project. As described in Annex I (added as a response to the reviewers comments and to the GEF Secretariat review) proposals regarding the composition of the Regional Teams and the structure of the Network will be finalised during this period. These will be endorsed at the first steering group meeting to be convened during the first month of project execution thus ensuring rapid mobilisation of the Network and commencement of activities.

- 3) In relation with the previous point, the reviewer points out that it would be unrealistic for participants to the project on an in-kind basis to react with the necessary promptness. It should be noted however, that funding is available to support the Regional Team members directly for the data gathering exercise.
- 4) The reviewer notes the absence of government representatives in the membership of the Steering Group. It is felt however that further widening the composition of the Steering Group would lead to a too large, and thus inefficient body (as the reviewer himself points out). It is anticipated, however, that representatives of the donor governments will be members of the Steering Group.
- 5) The reviewer makes a number of specific comments on points of scientific and technical detail, or that relate to management and organisational detail. These have been addressed directly in the revised text as now presented, with the exception of reference to the

OSPARCOM study in the Incremental Cost Annex since the actual costs involved are not available.

#### RESPONSE TO WORLD BANK REVIEW

The World Bank review raises a number of points, most of which have been addressed in the revised version now presented, or are answered in the context of the reply to the STAP review. Regarding the distribution of funding among countries and regions: GEF funding will be allocated to regions according to the proportion of GEF eligible countries that they contain. The World Bank notes the risk that there be little or no data available in some regions. It is noted by the project proponents that the assessment will access unpublished government sources. In addition expert consultants will be allocated to those Regional Teams that need specialist, expert assistance to supplement the lack of empirical data by modelling. Finally, it should be noted that the inclusion of an assessment of alternatives implemented at the regional level in the final regional priority setting meeting is intended to facilitate experience sharing and technology transfer within a region.

#### RESPONSE TO UNDP REVIEW

The UNDP review proposes that a donor's conference be held towards the end of the project. UNEP considers this an inappropriate suggestion since the objective is to determine priority issues and areas for future intervention but not to develop proposals for action to the level of detail required to solicit concrete financing. The review notes that the description of the baseline is incomplete. The calculations of the project baseline will be expanded through assembling further details of the costs associated with programmes and activities at regional and global scales. It should be noted however, that this is a global project that is fully complementary, hence the baseline has less relevance than is the case of single country projects.

#### RESPONSE TO COUNCIL COMMENTS

#### USA

- The regional structure in the Americas has been revised following Council member's wish that continental US not be split into two.

#### France

- Government representation in the Steering Group will be secured through participation of government representatives from co-financing countries.
- The risk assessment activities that are envisaged within this project are the evaluation of the comparative risks, and hence comparative urgency to mitigate, the various chemical related environmental issues, rather than in-depth risk assessment of individual compounds.
- A procedure for developing an indicative list of substances for each region is described in the "Guidance document for the collection and evaluation of data on sources, environmental levels and impacts of persistent toxic substances" developed during project preparation phase. A core list of the twelve global POPs and the sixteen POPs in the UNECE regional LRTAP protocol is suggested for all regions, whilst it is emphasised that the project relates to PTS which is a broader concept than POPs.

#### ANNEX D

TABLE 1. PRELIMINARY ROOT CAUSE ANALYSIS OF THE USE AND SUBSEQUENT RELEASE OF PTS IN THE ENVIRONMENT
(Based on the causal chain analysis for chemical pollution developed in the preparation phase of GIWA, and further refined during the fourth technical workshop on social and economic considerations for the assessment of PTS.)

	Immediate	Secondary	Ultimate	Uncertainties
Agriculture	Intensification of agriculture	Increased demand for food	Lack of internalisation of	The uncertainties pertaining
	Development of resistance	proteins	costs of environmental	to the impact of PTS on the
	Lack of training	Inappropriate subsidies	degradation	environment can be grouped
	Aggressive marketing	Lack of support for		in two major categories:
	Lack of buffer zones	alternatives (IPM)		
		Increased demand for cash		(1) Uncertainties on sources:
		crops		
		Population growth		- difficulties in quantifying
Sylviculture	Yield maintenance	Population growth	Lack of internalisation of	relative magnitude of sources
	Shorter replacement time	Growth centred development	costs of environmental	- lack of information on
	Demand for fiber	Need for cash revenues	degradation	production rates and use of
	Demand for lumber		Lack of conservation policies	PTS and their locations
	Demand for energy			- future releases from
	Development of resistance			environmental reservoirs
	Lack of training			- persistence
Aquaculture	Aquaculture development	Need for cash revenues	Lack of internalisation of	
	Enhanced use of anti-foulants		costs of environmental	(2) Uncertainties on effects:
	Enhanced use of anti-		degradation	
	parasites		Lack of conservation policies	- dose/response relationship
			Lack of enforcement of	uncertain (low-doses)
			regulations	- effects of mixtures
Human health protection	Lack of preferable/acceptable	Concentration of population	Lack of financial and/or	- consequence of observed
(Vector Control)	alternatives	Settlement of previously	technical resources	effects at the cellular level at
	Social and economic costs of	sparsely inhabited areas		a higher level (individual,
	morbidity and mortality	Lack of medical facilities		community, ecosystem)
		Lack of education		

	Immediate	Secondary	Ultimate	Uncertainties
Industrial chemicals and	Enhanced manufacture and	Population growth	Poor development and/or	Same as above
by-products	use of chemicals	Enhancement in standards of	regulations pertaining to	
	Increased use of vehicles	living	environmental impacts of	
	Increased fossil fuels	Increased urbanisation	industrial development	
	combustion	Inadequate transport policies	Lack of internalisation of	
		Difficulty in monitoring	costs of environmental	
		Lack of knowledge of	degradation	
		pollution impacts	Lack of research/	
			development in alternatives to	
			fossil fuels	
			Lack of financial and/or	
			technical resources	
"Natural" by-products	Land clearance	Demand for arable land	Inadequate enforcement of	]
	Increased combustion of	Concentration of population	regulations	
	natural vegetation	2 2	_	

TABLE 2 IMPACT AND TRANSBOUNDARY ISSUES ASSOCIATED WITH THE CONTAMINATION OF VARIOUS ENVIRONMENTAL COMPARTMENTS

ISSUES: CONTAMINATION OF:	ENVIRONMENTAL IMPACT	SOCIAL AND ECONOMIC IMPACT	POTENTIAL TRANSBOUNDARY CONSIDERATIONS
OPEN OCEAN	contamination of pelagic species and potential biological effects, including potential effects on biological diversity	<ul> <li>public concern for the deterioration of the marine environment*</li> <li>potential loss in fisheries</li> </ul>	<ul><li>transport of contaminants via marine currents</li><li>"biotransport" through contaminated marine species</li></ul>
COASTAL ZONE, ESTUARIES & MARGINAL SEAS	- contamination of pelagic and benthic species with resulting potential biological effects at the cellular, organ, individual, population and community levels	<ul> <li>loss/change of "way-of-life", in particular of indigenous peoples</li> <li>loss of tourism/recreational opportunities</li> <li>loss of protected areas</li> <li>loss or disruption of fisheries and other marine resources</li> <li>diminished health status of humans</li> <li>increased cost of human health protection measures</li> <li>reduced options for aquaculture development</li> <li>increased cost of water treatment</li> <li>cost of potential clean-up</li> </ul>	- transport of contaminants via marine currents - "biotransport" through contaminated marine species - release of PTS from the water column to the atmosphere - long-term reservoir in sediments and release to the water column
RIVERS AND LAKES	- contamination of freshwater species with resulting potential biological effects at the cellular, organ, individual, population and community levels	<ul> <li>loss/change of "way-of-life", in particular of indigenous peoples.</li> <li>loss of tourism and recreational opportunities</li> <li>potential human health effects</li> <li>increased cost of water treatment or finding alternative supplies</li> <li>compromise of other uses of freshwater</li> <li>increased cost of navigational dredging</li> <li>reduced options for aquaculture development</li> <li>cost of potential clean-up</li> </ul>	transport from upstream to downstream in both dissolved and particulate forms     sediments act as long-term reservoir and source of release

<sup>\*</sup> this impact would apply to all media in this table where significant concerns were identified, but it is not repeated in order to simplify the presentation.

ISSUES: CONTAMINATION OF:	ENVIRONMENTAL IMPACT	SOCIAL AND ECONOMIC IMPACT	POTENTIAL TRANSBOUNDARY CONSIDERATIONS
GROUNDWATER	- unknown effect on micro-organisms	loss/disruption of drinking water supply     potential human health effects     increased cost of water treatment or finding alternative supplies     compromise of other uses of freshwater     cost of potential clean-up	- possibly, if shared aquifer - through release of PTS to surface waters
AGRICULTURAL SOILS AND TERRESTRIAL ENVIRONMENT, INCLUDING CONTAMINATED LAND	possible source of contamination of surface or ground waters     contamination and potential biological impact on the terrestrial ecosystem, including acute toxicity on a local scale	<ul> <li>loss of use for agricultural purposes</li> <li>possible local contamination of food-stuff, particularly indigenous peoples food supply</li> <li>increased costs of food processing activities</li> <li>use for lower value products and impediment to economic use of land</li> <li>cost of potential clean-up</li> <li>increased cost of human health treatment</li> <li>loss of pristine environment</li> </ul>	- source of exchange and release to atmosphere
ATMOSPHERE	- local or regional impact on air quality	- reduction in health and well-being - increased cost of human health treatment - costs of intervention to remediate	- acts as a significant medium for transboundary movement and redistribution of PTS

#### ANNEX E

#### **AVAILABLE REFERENCE DOCUMENTS**

- 1. Minutes of the 1st meeting of the Steering Group, Geneva, November 11-13 1998.
- 2. Report from the 1st scientific and technical evaluation workshop on persistent manufactured chemicals produced for non-agricultural applications and unintentional persistent by-products of industrial combustion processes, Geneva, January 11-15 1999
- 3. Report from the 2nd scientific and technical evaluation workshop on persistent organic pesticides used in agriculture, human health, and other related sectors; and 3rd scientific and technical evaluation workshop on organometallics, Geneva, February 22-26 1999
- 4. Report from the 4th workshop on policy, social, and economic issues in assessing persistent toxic substances, Geneva, April 12-15 1999
- 5. Report from the 5th workshop on management and planning issues for the Regionally-based Assessment of Persistent Toxic Substances, Geneva, May 17-20 1999
- 6. Major Information Sources (a compilation of information sources consulted during the PDF-B phase)
- 7. The publication "Regionally-based Assessment of Persistent Toxic Substances Workshops Reports from a Global Environment Facility Project", UNEP-Chemicals, Geneva, September 1999
- 8. Report of the 2nd meeting of the Steering Group, Washington, June 28-30 1999

## ANNEX F - PROPOSED GEOGRAPHICAL UNITS OF ASSESSMENT (TO BE ENDORSED BY INCEPTION STEERING GROUP MEETING)

REGION	COUNTRIES
I Arctic	Canada, Denmark, Finland, Iceland, Norway, Russian Federation,
	Sweden, United States of America (Alaska)
II North America	Canada, United States of America, Mexico
III Europe (Northern part,	Armenia, Austria, Azerbaijan, Belarus, Belgium, Bulgaria, Czech
including Baltic, Black Sea	Republic, Denmark, Estonia, Finland, Georgia, Germany, Hungary,
and Caspian Sea)	Ireland, Latvia, Liechtenstein, Lithuania, Luxembourg, Netherlands,
-	Norway, Poland, Republic of Moldova, Romania, Russian Federation,
	Slovakia, Sweden, Switzerland, Ukraine, United Kingdom of Great
	Britain and Northern Ireland
IV Mediterranean	Albania, Algeria, Andorra, Bosnia-Herzegovina, Croatia, Cyprus, Egypt,
	France, Greece, Israel, Italy, Jordan, Lebanon, Libyan Arab Jamahiriya,
	Malta, Monaco, Morocco, Palestine, Portugal, San Marino, Slovenia,
	Spain, Syrian Arab Republic, The Former Yugoslav Republic of
	Macedonia, Tunisia, Turkey, Yugoslavia
V Sub-Saharan Africa	Angola, Benin, Botswana, Brunei Darussalam, Burkina Faso, Burundi,
	Cameroon, Central African Republic, Chad, Comoros, Congo
	(Brazzaville), Cote d'Ivoire, Democratic Republic of Congo, Djibouti,
	Equatorial Guinea, Eritrea, Ethiopia, Gabon, Ghana, Guinea-Bissau,
	Guinea, Kenya, Lesotho, Liberia, Madagascar, Malawi, Mali,
	Mauritania, Mauritius, Mozambique, Namibia, Niger, Nigeria, Rwanda,
	Sao Tome and Principe, Senegal, Seychelles, Sierra Leone, Somalia,
	South Africa, Sudan, Swaziland, Tanzania, Togo, Uganda, Zambia,
	Zimbabwe
VI Indian Ocean	Bahrain, Bangladesh, Bhutan, India, Iran (Islamic Republic of), Iraq,
	Kuwait, Myanmar, Nepal, Oman, Pakistan, Qatar, Saudi Arabia, Sri
	Lanka, United Arabic Emirates, Yemen
VII Central and North East	Afghanistan, China, Democratic People's Republic of Korea, South
Asia (Western North	Korea, Japan, Kazakhstan, Kyrgyzstan, Mongolia, Russian Federation,
Pacific)	Tajikistan, Turkmenistan, Uzbekistan
VIII South-east Asia and	Australia, Cambodia, Indonesia, Lao People's Republic, Malaysia,
South Pacific	Maldives, New Zealand, Papua New Guinea, Philippines, Singapore,
*** *** *** ***	Thailand, Viet Nam
IX Pacific Islands	Small Island Developing States and other small islands of the Pacific
X Central America and the	Antigua and Barbuda, Bahamas, Barbados, Belize, Colombia, Costa
Caribbean	Rica, Cuba, Dominica, Dominican Republic, El Salvador, Guatemala,
	Guyana, Haiti, Honduras, Jamaica, Nicaragua, Panama, Puerto Rico,
	Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines,
WIE ( 1337 )	Suriname, Trinidad and Tobago, Venezuela
XI Eastern and Western	Argentina, Bolivia, Brazil, Chile, Ecuador, Paraguay, Peru, Uruguay
South America	
XII Antarctica	-

## ANNEX G DRAFT OUTLINE FOR THE REGIONAL REPORTS

The outline of the Regional Reports, subject to changes based on discussions and outcome of the 1<sup>st</sup> Steering Group Meeting should be as follows:

#### **Preface**

- i) Overview of the global project;
- ii) Structure of Regional Team;
- iii) Acknowledgement.

#### 1. Introduction

Regional definition (physical setting, climate, patterns of development); Problem definition (scope of the regional assessment, methodology, overview of outcomes or limitations).

#### 2. Source Characterisation

The responses obtained during the country contribution phase, particularly from the questionnaires for source identification developed during the preparatory phase, will be evaluated. The regional Network and the existing regional structures of intergovernmental organisations will be utilised to obtain additional information. Already available information such as UNEP Chemical's questionnaires on POPs and other compiled information will be used as well.

- i) Production and use data for PTS pesticides, identification of major agricultural areas;
- ii) Sources of industrial chemicals, identification of major industrial centres or specific production sites;
- iii) Sources of unintentional PTS by-products (identification of point sources and diffuse sources, information on industries potentially releasing PTS);
- iv) Import and export statistics of PTS and PTS containing wastes;
- v) Identification of stocks and reservoirs of PTS;
- vi) Data gaps;
- vii) Summary of most significant regional sources.

#### 3. Environmental Levels, Toxicological and Ecotoxicological Characterisation

On the basis of the questionnaires, searches in the open literature and access to other published and non-published sources, data on measured concentrations of persistent toxic substances in various environmental media and in biota, including humans, within each region will be assembled, as well as observed damage caused by environmental exposure to PTS. The likelihood that an observed damage has been caused by PTS may also be recorded. Based on the assessment of sources and environmental levels and/or impacts in the region, the risk of adverse effects on human health and the environment, including natural resources will be assessed.

- i) Concentrations of PTS in abiotic compartments of the environment (highlight of hotspots, trend analysis if data permits);
- ii) Concentrations of PTS in biota, including humans;
- iii) Evidence of harmful effects;
- iv) Comparison of measured data with health or environmental quality criteria;
- v) Existence of regionally derived ecotoxicological data and appropriate test species;
- vi) Data gaps;
- vii) Identification of the major contributors, by sector, to damage to natural resources, ecosystems, and humans.

#### 4. Assessment of Major Pathways of Contaminants Transport

This section of the assessment seeks to relate, at least on a qualitative basis, the measured environmental levels with the sources. The final result will be a picture of the comparative importance of transport mechanisms of contaminants within regions and into and out of regions.

- i) Qualitative (or quantitative if data permits) assessment of input and output from the region (ocean currents, atmospheric circulation, river and groundwater flow, bio-transport);
- ii) Qualitative (or quantitative if data permits) assessment of transport within the region;
- iii) Data gaps (concentrations, flows).

#### 5. Preliminary Assessment of the Regional Capacity and Needs to Manage PTS

Rapid overview of the regional capacity to analyse the presence of PTS in the environment, the existence of alternatives and reduction measures, and the regulations and their enforcement. This will be based mostly on the replies from the questionnaires, and on existing data in UNEP and elsewhere. Because these issues are mostly pertinent at the national level, the analysis will emphasise the regional aspects of the problem (for example the feasibility of regional or sub-regional centres for monitoring, or pesticides destruction facilities, regional agreements, etc.)

- i) Capacity to monitor PTS;
- ii) Existing regulation and management structures addressing PTS;
- iii) Status of enforcement in the region;
- iv) Examples of alternatives or measures for reduction;
- v) Technology transfer issues;
- vi) Identification of needs, in particular for regional co-operation.

#### 6. Conclusions

- i) Identification of the barriers that prevent the reduction or elimination of PTS and their release in the environment (institutional, social/cultural, economic, technical);
- ii) Priority chemical related environmental issues in the region;
- iii) Recommendations for future activities.

#### ANNEX H

## TERMS OF REFERENCE FOR: THE STEERING GROUP; THE PROJECT MANAGER; THE REGIONAL CO-ORDINATORS; AND, THE REGIONAL TEAMS.

#### STEERING GROUP

The Steering Group will be responsible for providing overall guidance to the process of implementation of the project. More specifically, the Steering Group will:

- i) review and endorse the management plan and work plan for the project as developed by the Project Manager;
- ii) review and endorse the Regional Co-ordinators and other Regional Team members;
- iii) review and endorse the other components of the Network as proposed by the Project Manager;
- iv) allocate funds from the "experts consultant" budget line to the regional teams that require assistance and/or specialist time;
- v) facilitate co-ordination with other related activities to avoid duplication of work;
- vi) facilitate access to Networks and individual expertise;
- vii) review progress in the implementation of the various activities of the project and
- viii) suggest corrective actions, as necessary;
- ix) assist the Project Manager and the Regional Co-ordinators in soliciting wide support for the execution of the project; and
- x) assist in dissemination and acceptance of the results of the assessment.

#### The Steering Group will meet at four times:

- i) at the onset of the project, to review and endorse the management and work plan; to review and endorse the Regional Co-ordinators and other Regional Team members; and to approve the release of a portion of the funds available under the "expert consultants" budget line for those regions comprising only GEF-eligible countries, and where it is already apparent that additional support to the Regional Teams is necessary;
- ii) month 7 in the project, immediately after the phase of Country Level Contributions, to review progress in implementation, resolve difficulties and suggest corrective actions as needed; and decide on further budget allocation from the "expert consultants" line for those regions where the Country Level Contribution phase have shown that additional support to the Regional Teams will be necessary, and for possible Incremental Costs case studies (the meeting may be attended by some of the Regional Co-ordinators);
- iii) month 12 in the project, to review progress in implementation, resolve difficulties and suggest corrective actions as needed; and identify possible needs for targeted research (the meeting may be attended by some of the Regional Co-ordinators); and
- iv) at the end of the project, to assess lessons learnt during the project and to recommend follow-up activities within and outside GEF.

Between regular meetings, the Steering Group will work via correspondence or conference calls. At its first meeting, the Steering Group shall decide upon its own rules of procedure and standing orders.

The Project Manager will act as Secretary to the Steering Group.

Membership of the Steering Group will consist of UNEP Chemicals, UNEP GEF Coordination Office, UNEP Division of Environmental Assessment and Early Warning, UNEP/GPA Co-ordination Office, the GEF implementing agencies UNDP and the World Bank, a member of the Scientific and Technical Advisory Panel, the GIWA core team, environmental NGOs such as the World Wildlife Fund for Nature, Industry, independent scientists, and other UN agencies (including UNECE, FAO, and WHO). Additional representatives, in particular from co-financiers, may be added as partnerships and collaborative arrangements are extended and finalised.

#### PROJECT MANAGER

Under the overall supervision of the Director of UNEP Chemicals and the Executive Coordinator of the UNEP-GEF Co-ordination Office, the Project Manager will be responsible for the timely delivery of all products of the assessment and for overseeing expenditures in the regions. More specifically, the Project Manager will:

#### 1. Direct and supervise the implementation of the project by:

- i) preparing contracts and agreements with the institutions, organisations, and individual experts comprising the Regional Teams, including the Regional Co-ordinators;
- ii) acting as Secretary for the Steering Group;
- iii) convening meetings of the Regional Co-ordinators, as necessary;
- iv) monitoring project progress, and preparing Quarterly Operational Reports to the GEF to be submitted to the UNEP-GEF Co-ordination Office;
- v) preparing half-yearly progress reports to UNEP; and
- vi) preparing financial reports to UNEP and other co-financing organisations.

#### 2. Support the assessment at the regional level by:

- i) facilitating and supporting the work of the Regional Teams through provision of advice and identification and provision of external expertise as required;
- ii) providing guidance to the work of the Regional Teams;
- iii) participating in regional meetings as necessary; and
- iv) ensuring the transfer and sharing of experiences and information between the various Regional Teams.

#### 3. Support and co-ordinate the assessment at the global level by:

- i) Formulating and recommending policies and strategies to the Steering Group for the establishment of the Network;
- ii) developing guidelines and questionnaires for the conduct of the project, with expert assistance as appropriate;

- iii) identifying eventual needs for special expertise and identifying appropriate experts and sources of information;
- iv) identifying participants and organising the Global Priority Setting Meeting and the alternatives/remediation Task Force; and
- v) co-ordinating the writing of, and providing substantive input to, the Global Report.

#### 4. Manage interactions with external entities through:

- i) liaison with organisations and institutions to ensure the greatest synergy between the Regionally-based Assessment and related activities;
- ii) liaison with co-financiers and other potential donors;
- iii) liaison with relevant NGOs and other stakeholders;
- iv) liaison with governments to secure participation and support for the process of the assessment and its conclusions;
- v) organisation of press briefings as appropriate;
- vi) directing the establishment and maintenance of a web site; and
- vii) organisation of the publication and wide dissemination of the findings of the Regionally-based Assessment.

#### **Qualifications:**

Advanced degree in environmental science, natural sciences, chemistry or engineering. Expertise in the field of persistent toxic substances an advantage.

Experience at the international level for over seven years. Experience of interdisciplinary projects involving scientific institutions, governments, Industry and other stakeholders. Knowledge of environmental and institutional conditions in developing countries. Record of managing capabilities. Ability to assess and resolve complex scientific and technical issues. Ability to communicate effectively with peers and managers at all level. Excellent managing skills.

Excellent command of English.

#### **REGIONAL CO-ORDINATORS**

With the assistance of the Project Manager, the Regional Co-ordinator will be responsible for the timely delivery of the products of the assessment at the regional level. More specifically, each Regional Co-ordinator will:

#### 1. Direct the implementation of the project in the region by:

- i) acting as Secretary to the Regional Team meetings;
- ii) convening Regional Team meetings, with support from UNEP Chemicals, as necessary;
- iii) convening the technical workshops and regional priority meeting, with support from UNEP Chemicals, as necessary;
- iv) monitoring project progress, and reporting on a regular basis to the Project Manager;
- v) preparing Quarterly Reports to be submitted to the Project Manager for further

- vi) integration in a Quarterly Progress Report; and
- vii) preparing financial reports as necessary.

#### 2. Co-ordinate and support the regional assessment by:

- i) presenting and explaining the purpose of the Regionally-based Assessment, its protocols and methodologies, to the members of the regional Network;
- ii) identifying potential institutions, organisations or individuals for participation in the Network;
- iii) identifying participants to the technical workshops and regional priority meetings;
- iv) co-ordinating the collection and analysis of the country specific data submitted during the "country contribution" phase;
- v) identifying the need for external expertise;
- vi) co-ordinating, supervising, and providing substantive input to the discussion papers;
- vii) co-ordinating, supervising, and providing substantive input to the drafting and review of the Regional Report.

#### 3. Support the assessment at the global level by:

- i) co-ordinating with the other regions, ensuring in particular that results are comparable;
- ii) participating to the drafting and/or reviewing of the Global Report;
- iii) participating to the meetings of Regional Co-ordinators, if necessary;
- iv) participating to meetings of the Steering Group, if necessary;
- v) participating to the Global Priority Setting Meeting.

#### 4. Manage interactions with external entities at the regional level by:

- i) liasing with organisations and institutions in the region to ensure the greatest participation to the Regional Assessment;
- ii) identifying and liasing with potential donors;
- iii) liasing with relevant NGOs and other stakeholders; and
- iv) liasing with governments to secure participation and support for the process of the assessment and its conclusions.

The regional co-ordinator will be agreed upon by the Steering Group at its first meeting, on the basis of the details of national experts submitted by government representatives such as UNEP focal points, delegates to the INC POPs negotiations, UNEP POPs Focal Points or IFCS Focal Points.

The specific expertise of the Regional Co-ordinator may vary from one region to another, but it is expected that this expertise would be related to persistent toxic substances. Fluency in English would be an advantage, to facilitate co-ordination of the project.

It is anticipated that the Regional Co-ordinator will be nested in an institution such as a university or government research centre, that will provide infrastructure and logistic support to manage the project, as well as facilitate access to a pool of resources for substantive support.

#### **REGIONAL TEAMS**

The objective of the Regionally-based Assessment of Persistent Toxic Substances is to deliver a scientific assessment of the threats posed by persistent toxic substances to the environment and human health. The assessment is focused at a regional level but consolidation of the regional analyses will enable identification of priorities at the global scale.

The assessment will be organised in twelve regions as the basic units, as per the list annex F. If required, the regions might be slightly adjusted as the project proceeds.

The Regional Teams will consist of 4 to 5 members. As is the case for the regional coordinator, the other team members will be reviewed and endorsed by the Steering Group at its first meeting, on the basis of, *inter alia*, the details of national experts submitted by government representatives such as UNEP focal points, delegates to the INC POPs negotiations, UNEP POPs Focal Points or IFCS Focal Points. The team members which will be drawn from government, academia, public interest NGOs or industry will preferably be members of an institution or an organisation, so that each team member can easily tap into a pool of resources. Particularly where membership does not include a member of an environmental NGO or the private sector, it will befit the Regional Team members to forge links with these sectors.

Collectively, the Regional Team is responsible for gathering reviewing, and analysing the collected information, and delivering the Regional Reports as described in the work plan and project document. Much of the work of the Regional Team will depend on day-to-day electronic mail communications.

Specifically, the Regional Team will:

- i) meet once at the onset to organise the programme of work at the regional level, and identify participants for the technical meetings;
- ii) identify the need for assistance and/or specialist expertise to complete the assessment;
- organise and participate to the technical meetings, and regional priority setting meeting, and meet afterwards to advance the writing of the Regional Report; and
- iv) strengthen the regional Network by encouraging the participation of a wide variety of stakeholders.

Individual members of the Regional Team will:

#### 1. Support the implementation of the project in the region by:

- i) participating to Regional Team meetings;
- ii) assisting the Regional Co-ordinator to convene the technical workshops and regional priority meeting;
- iii) monitoring project progress, and reporting on a regular basis to the Regional Coordinator;
- iv) preparing Quarterly Reports to be submitted to the Regional Co-ordinator; and
- v) preparing financial reports as necessary.

#### 2. Support the regional assessment by:

- i) presenting and explaining the purpose of the Regionally-based Assessment, its protocols and methodologies, to the members of the regional Network;
- ii) identifying potential institutions, organisations or individuals for participation in the Network;
- iii) identifying participants to the technical workshops and regional priority meetings;
- iv) identifying the need for external expertise;
- v) taking responsibility for preparing a specific component of the Regional Report; and
- vi) providing substantive input to the drafting and review of the Regional Report.

Members of Regional Teams from GEF eligible countries will receive financial support from the project budget to participate in meetings and to fulfil their tasks. It is expected that participants from non-eligible countries will cover their own costs as in kind or co-financing contributions to the project.

#### ANNEX I

# RESULTS OF THE PDF-B PHASE, "REGIONALLY-BASED ASSESSMENT OF PERSISTENT TOXIC SUBSTANCES" NOVEMBER 1998 - OCTOBER 1999 AND PREPARATORY ACTIONS TO BE COMPLETED BY APRIL 2000

#### BACKGROUND & OBJECTIVES OF THE PROJECT PREPARATION ACTIVITIES

As defined in the approved PDF-B document the objectives of the project preparation phase, were to:

- provide a basis for a regionally based, comprehensive, objective and comparative assessment of the damage and threats posed by persistent toxic chemicals to the aquatic environment, its resources and amenities;
- establish a scientific basis for determining the relative priorities among persistent toxic chemicals taking account of the distance scales of transport and the nature and modes of adverse effect and threats associated with exposures to aquatic organisms and human consumers of aquatic foodstuffs;
- design an assessment mechanism that takes full account of the specific regional conditions, the multi-sectoral nature of the sources of persistent toxic chemicals and includes all relevant disciplines and agencies in the assessment process;
- prepare a GEF Project Brief, specifying mechanisms, participation, identification of the co-financing, and approaches to evaluating incremental cost elements and requirements for intervention at national and regional levels.

The PDF phase was executed by the Chemicals Unit of UNEP that also serves as the Secretariat for the Intergovernmental Negotiating Committee for an international legally binding instrument for implementing international action on certain persistent organic pollutants. Activities commenced with an initial Steering Group meeting in November 1998, followed by a series of four expert workshops, a management and planning workshop, and a final Steering Group meeting convened in Washington in June 1999.

#### OUTCOME OF THE PDF-B ACTIVITIES

A general outcome of the PDF phase was the initiation, via the workshops, of contact and partnership with individual experts and organisations that will form part of the Network which will execute the full project. A total of fifty-seven experts from around the world were consulted during this phase, including twenty-one from developing countries or countries with economies in transition, participating in the various workshops. Expert participants in the five workshops were drawn from Government, from academia, from NGOs (Greenpeace, World Wildlife Fund for Nature, Pesticide Action Network) and from the industrial sector (Table 1).

Table 1. Representation of different stakeholder groups in the PDF-B activities. Numbers in parentheses are the numbers of organisations represented by the individuals concerned.

	International	Government	University &		
	agency	Department	Research	Industry	NGOs
		<ul> <li>Institution.</li> </ul>	Organisation		
Workshop 1	5 [4]	7	12	2	0
Workshop 2	3	10	8	1	1
Workshop 3	3	10	8	0	1
Workshop 4	5 [4]	9	6	1	2
Workshop 5	8 [5]	7	2	0	2
TOTAL [%]	24 [21%]	43 [38%]	37 [32%]	4 [3.5%]	6 [5.3%]

The first scientific and technical workshop on "Persistent manufactured chemicals produced for non-agricultural applications and unintentional persistent toxic by-products of industrial and combustion processes", was held from 11-15 January 1999. The workshop developed a generic approach and recommendations for methods to be used in assessing sources of PTS; drafted a reference list of processes known to emit PTS; prepared a list of source inventories in different regions; and designed a ranking scheme for prioritisation of PTS based on their ecotoxicological properties.

The second workshop on "Persistent organic pesticides used in agriculture, human health, and other related sectors", was convened from 22-25 February 1999. The workshop reviewed and agreed on a scheme for the evaluation of persistence and potential for long range transport and an approach to evaluating overall toxicity and exposure. The outputs from this workshop together with those from the first workshop provide the strategy needed to complete the regional assessments and the tools for ranking and prioritising chemicals within each region.

A one day workshop on "Organometallic compounds", held in February 1999 reviewed the state of knowledge on environmental pathways of organometallic compounds; drafted a list of sources of organometallic compounds; and evaluated the likely geographic extent of contamination in relation to the source type. The outputs provide a framework for the assessment through identification of known problems and data gaps.

A workshop on "Policy, social, and economic issues in assessing persistent toxic substances", was held from April 12-15 1999. The workshop: prepared an annotated listing of available management interventions; the use of economic analysis in decision-making; prepared a tabulation of the impact and transboundary issues associated with the contamination of various environmental compartments (Annex D); drafted a preliminary root cause analysis of the use and subsequent release of PTS in the environment (Annex D); and prepared a matrix of the available techniques and technologies available to reduce/eliminate the use and release of PTS.

The final workshop on "Management and planning issues for the Regionally-based Assessment of persistent toxic substances", was convened May 17-20, 1999 to: discuss and agree implementation arrangements; the rationale for the proposed regional framework; elaborate a management structure for the project; discuss expected key outputs from the assessment, and finalise the list of activities to be completed during the full project. The main output from this workshop consists of the list of activities to be completed in each region in the form of a draft outline for the Regional Reports (see Annex I)

The experts also agreed on a tentative definition for substances to be considered under the project: for the purpose of this assessment, substances to be considered should have toxicity, bioaccumulation and persistence to be of concern. The toxicity could be expressed as effects on organs, organ systems or functions in intact animals or humans, or in the absence of such data, as interactions with cellular or sub-cellular in vitro systems linked to events leading to such effects. The toxic effects would include but not be restricted to death, disease, behavioral abnormalities, cancer, genetic mutations, endocrine disruption, or physiological, developmental, reproductive or physical deformities in any living species or its offspring. The persistence of the chemical in the environment could be due to its inherent properties, e.g. resistance to degradation or because of its continuous release to the environment from significant local or regional sources. In both cases the exposure to the chemical was considered to be essentially continuous.

#### RATIONALE FOR THE PROPOSED REGIONAL FRAMEWORK.

The rationale for the regions chosen for the assessment was discussed during the Management and Planning workshop, held 17-20 May 1999, Geneva, and during the second Steering Group meeting, held June 28-30 Washington. It was agreed that: to the extent possible, countries with similar production and consumption patterns, similarities in level of economic development and chemicals assessment capacity and regulatory infrastructure should be grouped in the same regions or sub-regions. It was decided that countries would be placed in only one region, in order to facilitate the integration of country data aggregated on a national basis. It is expected however that the Regional Reports will take into consideration information from neighbouring regions that serve as sources of, or sinks for PTS within the region concerned, and that scientists from one region could participate in the workshops of a neighbouring regions as appropriate.

It was further recognised that any regional division, unless at a large scale, would represent a compromise between the need for precision and the costs involved. Dividing the world according to major atmospheric circulation patterns and marine currents, whilst at the same time taking into account countries commonalities, led to 21 regions, which was considered too great a number for the available financial resources.

#### ACTIVITIES TO BE UNDERTAKEN PRIOR TO THE COMMENCEMENT OF THE FULL PROJECT

The following actions and activities will be undertaken over the next five months using the unspent balance of the PDF-B funds. These actions will ensure completion of all outputs anticipated as being produced through the PDF-B. these outputs were as follows:

- 1. Reports of the two Steering Group meetings, the four expert workshops and the management workshop.
- 2. Complete scoping of the project and terms of reference of the assessment in terms of both the characteristics of potentially relevant chemicals and the anthropogenic activities to be considered.
- 3. Bibliography of major reviews and metadata sources of relevance to the assessment.
- 4. GEF Project Brief for the Regionally Based Persistent Toxic Chemicals Assessment.

Of these outputs the reports of the various meetings are published and available (Annex G) whilst the present document constitutes the fourth output. A preliminary draft bibliography (output 3) has been prepared in the form of a compilation of the major information sources consulted during the PDF-B and this will be further amplified and refined during the next five months in advance of commencement of the full project. In addition to metadata, the bibliography will include PTS related articles published in international journals related to GEF eligible countries for the period 1990 to 1999 as a source of information for use by the Regional Teams.

The present document (the project brief) presents the scope of the full project whilst further detail concerning the nature of actions and activities to be undertaken at the country and regional level are provided in the reports of the various expert consultations.

As the Executing Agency for the PDF-B, UNEP Chemicals, with the assistance of appropriate experts, and in close collaboration with the members of the Steering Group, will prepare the final draft guidelines for the conduct of the assessment. These will be based on the outputs from the PDF-B expert workshops, and will provide countries and Regional Teams with the tools that will ensure comparability between and within regions. Drafts will be circulated to potential members of the Network for comments and review, prior to the final draft being presented to the first Steering Group meeting.

Specifically, guidelines for the Regional Teams will be drafted outlining methods for: conduct of source assessments; quality control of data concerning concentrations in the environment; and impact assessment, including a compendium of environmental quality criteria. Questionnaires for completion at the national level will also be drafted concerning: known sources; levels in the environment; known impacts; transboundary movement; and barriers to adequate management of persistent toxic substances.

The elements of the Network, described in paragraphs 13&14 of this project brief, will be contacted and appropriate memoranda and or contracts drafted for review and endorsement by the first meeting of the Steering Group. Many of the experts involved in the PDF-B workshops will be involved directly in the execution of the full project. The composition of the Regional Teams can therefore be agreed upon during the first Steering Group meeting following project approval, and the Network will become operational within one month of signature of the final project document. Through involvement of the potential members of the Network in reviewing the draft guidelines they will become fully aware of the magnitude of the task in advance of project commencement.

The future responsibilities of environmental NGOs such as WWF and Greenpeace, that have participated in the PDF activities will be determined and their advice sought concerning possible roles for them and for other appropriate NGO's in the execution of the project. The International POPs Elimination Network (IPEN) which represents the broadest possible spectrum of the public interest NGOs involved in the ongoing POPs negotiations for a global treaty will be contacted to identify relevant NGOs active at the national or regional levels that might participate in the work of the Network at regional and national levels. IPEN will be asked to nominate the two NGO members for the Steering Group.

Experts from Industry that have participated in the PDF activities, as well as the International Council of Chemical Associations (ICCA) and the Global Crop Protection Federation (GCPF) will be asked to assist in identifying the most appropriate trade and industry associations that could assist in the execution of the project. In addition their assistance will be sought in identifying possible sources of additional co-financing. Additional contacts will be established with industry observers participating in the INC negotiations. Specific arrangements will be made by time of endorsement for the participation of the two NGOs, and two representatives of Industry / the private sector in the Steering Group.

Experts from academic and research institutions that have participated in the PDF-B workshops, as well as international scientific societies such as the International Union of Toxicology (IUTOX) and the Society for Environmental Toxicology and Chemistry (SETAC) will be asked to assist in identifying appropriate international and regional scientific societies and associations active in research related to persistent toxic substances with a view to soliciting their support and active involvement in the execution of the project.

The calculations of the project baseline will be expanded during this preparatory phase through assembling further details of the costs associated with programmes and activities at regional and global scales that address issues related to persistent toxic substances.

## ANNEX J Table 1. Preliminary Workplan: Summary of Project Activities, Milestones and Products

(to be further refined and endorsed at the first Steering Group Meeting)

Activity	Time period	Implementation	Products		
	1. Project development phase (PDF-B)				
1.1. Establishment of Steering Group and meetings of Steering Group and Technical Expert Groups	November 1998-June 1999	UNEP	Two Steering Group Meeting reports, five Technical Expert Workshop Reports		
1.2 Preparation of preliminary bibliography	May-August 1999	UNEP	Preliminary bibliography in project brief.		
1.3 Analysis of the expert meeting results and design of the project brief	June-August 1999	UNEP	Project Brief		
1.4 Approval of the project brief	December 1999	UNEP	Approved project brief		
1.5 Appraisal and finalization of the UNEP Project Document including co-financing arrangements	December 1999-June 2000	UNEP	UNEP Project Document		
1.6 Final Clearance	June 2000	CEO	Final clearance by GEF CEO		
	2. Co	mponent 1: Co-ord	lination and management		
2.1 Appointment of Project Manager	June 2000	UNEP	Appointed Project Manager		
2.2. Establishment of project network	January- August 2000	UNEP	Functional network of participants from different sectors of society in all regions		
2.3 Identification of regional collaborators and focal points	January – August 2000	UNEP	Recommendations to the Steering Group on: identification of participants in all regions, selection and formation of Regional Task Teams and Co-ordinators		
2.4 1 <sup>st</sup> Meeting of the Steering Group	August 2000	UNEP	Review of appraisal phase activities, acceptance of project workplan, Regional Co-ordinators, regional teams		
	3. Component 2: Development of guidelines				
3.1 Completion of guidance document on sources, environmental levels and environmental impacts	December 1999-April 2000	UNEP	Guidance document		
3.2 Development of questionnaires	July-August 2000	UNEP	Questionnaires on sources, environmental levels and environmental impacts		
4. Component 3: The regional assessments					

4.1 Country level contributions phase	September 2000- June 2001	Project Manager and Regional Teams (Core team)	Assembled data on PTS from all countries involved in the project
4.2 Meetings of Regional Teams	October 2000 - December 2001	Core team	Meeting reports Successive (and final) drafts of comprehensive regional report including a list of regional priorities
4.3 Workshops on sources, levels, impacts and transport	May- October 2001	Core team	Workshop report on sources, levels, impacts and transport in the region Draft chapters for regional report
4.4. Assessment of regional capacity and needs to manage PTS and the root causes of the problems	September 2000- November 2001	Core team	Draft chapter for regional report
4.5 Regional Priority Setting Meeting	December 2001	Core team	List of regional priorities
4.6 Steering Group meetings	February - July 2001	UNEP	Assessment of progress Corrections to work plan if necessary
			Global Synthesis
5.1 Comparative review and synthesis of regional reports	January – February 2002	Core team assisted by experts from the network	First draft of the global report
5.2 Global Priority Setting Meeting and outline of alternatives/remediation options and Task Force of Alternatives	March-April 2002	UNEP/Core team plus experts	Second draft of the global report
5.3 Review of global report and final draft	May-June 2002	UNEP/Core team plus experts	Final draft of global report
ot.			tegy and implementation
6.1 1 <sup>st</sup> meeting of the Steering Group	August 2000	UNEP	Communications strategy
6.2 Establishment of web-site	October 2000	UNEP	Web-site with password protected areas
6.3 Production of information products, brochure, regional reports, global report	November 2000-July 2002	UNEP/Core team	Project brochure Regional Reports in hardcopy and CD-ROM Global Report in hardcopy and CD-ROM Popular layman's regional and global reports
6.4 Evaluation and reports to cosponsoring organizations	July-August 2002	UNEP	Evaluation reports

ANNEX L. COMMITMENTS OF CONTRIBUTIONS TO THE GEF REGIONALLY BASED ASSESSMENT OF PERSISTENT TOXIC SUBSTANCES

Country/organization	Contribution (US\$)	Comments
Australia	200,000	Primarily to South East Asian countries
Canada (Not administered by UNEP)	30,000 (50k Can\$)	Targeted for the assessment of the Arctic region through AMAP. More possible for 2001-2
France	~65,000(400.000FF)	More possible for 2001-2
Germany	420,000	Primarily for activities in Sub-Saharan Africa and South America. Additional \$230,000 available for 2003.
Sweden	150,000	Primarily directed to least developed countries (LDC)
Switzerland	100,000	For project co-ordination. More possible for 2001-2
United States	500,000	
UNEP and others in kind	360,000	
Total co-financing	1,825,000	
To be identified	166,000	

The individual commitments are attached below.

#### ANNEX M - FORMAT OF QUARTERLY REPORT TO UNEP/GEF

#### 1. IDENTIFIERS

**Country:** Global

Focal Area: International Waters

**Project Title:** Regionally Based Assessment of Persistent Toxic Substances

**Implementing Agency: UNEP** 

**GEF funding:** US \$

Co-funding: US \$

Other Support: UNEP (in kind) US \$

Others (in kind) US \$

#### 2. FINANCIAL STATUS

[Commitment and disbursement data as of the date of the report]

#### 3. IMPLEMENTATION OF PROGRESS

[Statement of progress of the project components in relation to agreements or plans. Assessment of Overall status. Report on the reasons, in the event of delays, cost overrun or positive deviations]

#### 4. ACHIEVEMENT OF PROJECT OBJECTIVES

[Assessment of likelihood that project objectives will be achieved]

#### ANNEX - N- PROGRESS REPORT FORMAT

## UNITED NATIONS ENVIRONMENT PROGRAMME SIX MONTHLY PROGRESS REPORT

#### **SECTION 1 - BACKGROUND INFORMATION**

1.1	Projec	et Title:				
1.2	Projec	et Number:				
1.3	Responsible Office: (PAC/Unit/Branch)					
1.4	Coordi	inating Agency or Supporting Organization (if relevant):				
1.5	Report	ting Period: (the six months covered by this report)				
1.6	Releva	ant UNEP Programme of Work Component Number: (3 digits)				
SECT	TION 2	- PROJECT STATUS				
2.1		of the Implementation of the Activities and Outputs Listed Under the Workplan in the Project nent (check appropriate box)				
		Project activities and outputs listed in the Project workplan for the reporting period have been materially completed and the responsible Office is satisfied that the project will be fully completed on time (give reasons for minor variations as Section 3 below).				
		Project activities and outputs listed in the Project Workplan for the reporting period have been altered (give reasons for alterations: lack of finance; project reformulated; project revisions; other at Section 3 below).				
		Project activities and outputs listed in the Project Workplan for the reporting period have not been fully completed and delays in project delivery are expected (give reasons for variations in Section 3.1 and new completion date in Section 3.2 below).				
		Insufficient detail provided in the Project Workplan.				
2.2	List Ac	ctual Activities/Outputs Achieved in the Reporting period:  (please tick appropriate box)				
	nter-gove Others	S (UNEP-convened meetings only) ernmental (IG) mtg  Expert Group Mtg. Training Seminar/Workshop				
Venue	and dates	S				
Conver	ned by	Organized by				
Report	issued as	s doc. No/Symbol Languages Dated				
		minar/Workshop, please indicate: No. of participants and attach <b>annex</b> giving names and participants.				

(b) PRINTED MATERIALS  Report to IG Mtg. Technical Publication Technical Report Others  Title:
Author(s)/Editor(s)
(When technical reports/publications have been distributed, <b>attach distribution list</b> )
(c) TECHNICAL INFORMATION PUBLIC INFORMATION  Description
Dates
(d) TECHNICAL COOPERATION  Grants and Fellowships Advisory Services  Staff Missions Others (describe)  Purpose
Place and duration
For Grants/Fellowships, please indicate:  Beneficiaries
(e) SERVICES Description
Dates

For ex	THER OUTPUTS  cample, Centre of excellence, Network, Environmental Academy, Convention, Protocol, rsity chair, etc.
SEC	TION 3 - PROJECT DELIVERY
3.1	Summary of the Problems Encountered in Project Delivery (if any)
3.2	Actions Taken or Required to Solve the Problems (identified in Section 3.1 above)

#### ANNEX O - FINAL REPORT FOR INTERNAL PROJECTS

- 1. Project Title:
- **2. Project Number:** (include number of latest revision)
- 3. UNEP Programme of Work Component Number: (3 digits)
  Include a statement of how effective the project has been in attaining this component and its contribution to overall Subprogramme implementation

#### 4. Performance Indicators:

UNEP Programme of Work: {State the relevant Performance Indicators (with the Quantity figure) from the Programme of Work, and compare against actual results}

#### 5. Scope:

#### 6. Duration:

- (a) Initial {(as indicated in the original project document)List day/month/year of start and end of project.List project duration in terms of total months}.
- (b) Actual {(as indicated in the latest project revision) List day/month/year of start and end of the project. List project duration in terms of total months}.
- (c) Reasons for the variance {When there is a difference between the initial and actual duration, list the consecutive project revisions (number and date of approval), and summarize justification for each revision}.

#### 7. Cost:

- (a) Initial {(as indicated in the project document)
  List the total project cost (UNEP and "Others") and give breakdown by
  funding source. Give actual figures and contribution in terms of percentages}.
- (b) Actual {(as indicated in the latest project revision)
  List the total project cost (UNEP and "Others" and give breakdown by funding source. Give actual figures and contribution in terms of percentages}.
- (c) Reasons for the variance {(When there is a difference between the initial and actual cost, list the consecutive project revisions (number and date of approval) involved in amending the project costs. List any other reasons for discrepancy}.
- (d) Relate expenditure to achievement of outputs (e.g. 100% expenditure and 82% output completion).

#### 8. Needs:

- (a) Identified needs (as indicated in the original project document).
- (b) Satisfied/realized needs (List needs fulfilled due to implementation of the project).

#### 9. Results:

- (a) Expected Results (as indicated in the original project document).
- (b) Actual Results (indicate actual results achieved/attained from project implementation).
- (c) Reasons for the variance (state the reasons for the difference between expected and actual results).
- (d) State corrective action(s) to be taken.

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10.	( biit	puts:
IV.	Out	puis.

- (a) Expected Outputs (as indicated in the original project document).
- (b) Actual Outputs (List actual outputs resulting from project implementation emphasizing activities undertaken.
- (c) Reasons for the variance (state reasons for the difference between expected and actual outputs).
- (d) State corrective action(s) to be taken.

#### 11. What are the catalytic effects of the project on other agencies or governments?

- (a) intellectual:
- (b) financial:

12. Describe the problems encountered during project implementation	auvu	uu	uv	LL1	aı		u	ι	ι	ı	ι	ı.	ı.	L	ı	ι	ı	ı	ı	J.	J.	ı	ı	ı	. U	. U	ı	.,	u	ار	1	ı	ı	ı	ı	ı		æ	л	л	u	и	м	л	л	и	u	ι	ı	u		·	v	ш	ı,	u	1	,,	Ū.	u	٠,	ų,	ı	"	J	Į,	ı	ч	J	IJ	u	IJ	ч	1	, ,	ı	ι	J	_	۰	·	•	ж	フ	⊏	C	١٧	ľ		,	,	U	t	Į,	1	J	,	J	ı	_	~	ш	48		4.	IJ	u	.,	יי	u	•	u	··	.,		∕.	∕.	<b>-</b> ■	_	•	u	ıυ	ш	ш	ш	ш	u	v	u	u	ı	ш	C,	•	, ,		72	ш	ш	J.	16	ш	J	w	IJ	U
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Problems:	Causes:	Consequences:
(a)		
Substantial/Programmatic		
(b) Institutional		
(c) Financial		

#### 13. Lessons learned from the achievement and/or weaknesses of the project:

#### 14 Recommendations:

Make recommendations to:

- (a) improve effect and impact of similar projects in the future;
- (b) indicate what further action might be needed to meet the project needs/results.

<b>15.</b>	Further	fallaw-un	action	required:
IJ.	I ul ulci	tonow-up	acuon	requireu.

(a) <u>Action Required</u> : (b) <u>Responsible unit(s)</u> :	(c) <u>Schedule</u> :
16. Evaluated by:	
Name and position of Evaluator:	
Date:	
17. Approved by:	
Name of Programme Manager/Regional Director:	Chief, Project Design and Evaluation Unit: