POPS ENABLING ACTIVITY
PROPOSAL FOR GEF FUNDING FOR NATIONAL IMPLEMENTATION PLAN ON PERSISTENT ORGANIC POLLUTANTS (POPS)

AGENCY'S PROJECT ID: GF/ERI/06/XXX
GEFSEC PROJECT ID: 3139
COUNTRY: Eritrea
COUNTRY ELIGIBILITY: Eritrea acceded the Stockholm Convention on POPs in March 2005
PROJECT TITLE: Enabling activities to facilitate early action on the implementation of the Stockholm Convention on Persistent Organic Pollutants (POPs) in Eritrea
GEF AGENCY: United Nations Industrial Development Organization (UNIDO)
OTHER EXECUTING AGENCY(IES):
DURATION: 1 year
GEF FOCAL AREA: Persistent Organic Pollutants
GEF OPERATIONAL PROGRAM: OP 14 (draft)
GEF STRATEGIC PRIORITY: POP 1- TARGETED CAPACITY BUILDING
ESTIMATED STARTING DATE: July 2006
IA FEE: US$ 31,185

FINANCING PLAN (US$)	
GEF PROJECT/COMPONENT	
Project	US$ 346,500
Sub-Total GEF	***US$ 346,500***
CO-FINANCING	
GEF Agency: UNIDO (in-kind)	US$ 20,000
National Contribution (in-kind)	US$ 15,000
Others	
Sub-Total Co-financing:	***US$ 35,000***
Total Project Financing:	**US$ 381,500**

RECORD OF ENDORSEMENT ON BEHALF OF THE GOVERNMENT:

Mr. Mogos Woldeyohannis, Director General, Department of Environment, Ministry of Land, Water, Environment and Cadastre Office, P.O. Box 5713, Asmara, Eritrea

Date: *November 25, 2005*

This proposal has been prepared in accordance with GEF policies and procedures and meets the standards of the GEF Project Review Criteria for POPs Enabling Activity approval.

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SUMMARY OF PROJECT OBJECTIVES, ACTIVITIES, AND EXPECTED OUTCOMES

1. Project objectives:

The overall objective of the proposed Enabling Activities (EA) project is to strengthen the national capacity and capability of Eritrea to prepare a National Implementation Plan (NIP) for the management of POPs. This plan will provide a basic and essential level of information to enable policy and strategic decisions to be made and identify priority activities that the country should undertake in order to meet the requirements of the Stockholm Convention. All stakeholders will endorse the NIP before its transmission to the Conference of Parties (COP).

2. Project activities:

The proposed project activities will follow the step-wise process outlined in the GEF "Initial Guidelines for Enabling Activities for the Stockholm Convention on POPs". Activities will further adhere to the "Interim Guidance for developing a National Implementation Plan for the Stockholm Convention" developed by UNEP/World Bank. The COP has approved this document, which builds upon and complements the GEF guidelines. As the two documents operate on a different level, they are designed to complement each other. Project activities have been developed according to both guidelines and are described in detail in the main body of this proposal. In summary, these activities will:

- establish a sustainable national inventory system that identifies and quantifies POPs production, trade, storage, use or unintentional emission (Articles 3, 5, 6, 9 and 10);
- assess current legal, institutional, and technical capacity in the management and monitoring of POPs;
- assess the socio-economic implications of POPs use and reduction and create awareness of POPs-related risks amongst stakeholders through information exchange and education so as to facilitate the identification and introduction of alternative chemicals (substitutes) (Articles 9 and 10);
- identify, from preliminary inventories and assessments, the actions to be taken by Eritrea as a matter of priority;
- develop action plans to prepare Eritrea for the ratification of the Convention; and
- prepare and gain endorsement for the NIP in accordance with Article 7.

3. Project Duration: 1 year

4. Project expected outcomes:

A National Plan for the implementation of actions to meet the obligations of Eritrea under the Stockholm Convention.

National capacity and capabilities to implement the NIP and fulfil reporting requirements to the COP.

INFORMATION ON INSTITUTION SUBMITTING PROJECT BRIEF

5. Information on the organization in the country submitting the proposal:

UNIDO is the United Nations' specialized agency for industrial development. It has long-established programmes to improve the economic and environmental performance of industry in developing countries and in countries with economies in transition. It has accumulated significant knowledge of a variety of industries such as the chemicals, pulp and paper, cement, ferrous and non-ferrous metals and textiles sectors. It is conversant with issues related, inter alia, to pesticide formulation and to the unintentional generation of POPs.

UNIDO has participated in those Interagency Cooperative events that led to the intergovernmental negotiations for the preparation of the Stockholm Convention including:

- International meetings held in Vancouver, Canada in 1995 and Manila, the Philippines, in 1996;

- Meetings of the Intergovernmental Forum on Chemical Safety (IFCS) and the Inter-Organization Programme for the Sound Management of Chemicals (IOMC);
- Intergovernmental Negotiating Committee (INC) meetings for an International Legally Binding Instrument for Implementing International Action on Certain POPs.

UNIDO is an executing agency with expanded opportunities for implementing GEF projects. In 2001, UNIDO became a member of the GEF Inter-Agency Task Force on POPs and mandated to submit enabling activity proposals directly to GEF. In November 2003, the GEF Council granted UNIDO the direct access to GEF resources by virtue of its comparative advantage in the POPs area.

To date, 40 Enabling Activities proposals submitted by UNIDO have been approved and many of these projects are in their advanced stage of implementation. NIPs for some African and Central and East European countries have been finalized and endorsed by the respective governments. UNIDO is developing proposals for these countries to address issues identified by their NIPs and works in cooperation with UN-system agencies and other institutions and interest groups to facilitate their initiatives. UNIDO is developing projects that promote capacity building for all stakeholders, including strengthening the abilities of NGOs in raising awareness of POPs issues at community level.

In addition to the Enabling Activities, UNIDO and its partners have developed a number of proposals and is executing projects:

- to identify best technologies for POPs elimination;
- to identify and evaluate alternative materials as substitutes for the prescribed POPs; and
- to identify suitable approaches to legal and social aspects of the management of POPs engaging government structures, industry and civil society.

Through the network of National Cleaner Production Centres in many developing countries and countries with economies in transition, UNIDO facilitates transfer of advanced technologies for the reduction of unintentional production of POPs and treatment of POPs polluted substances.

UNIDO's International Centre of Science and High Technology (ICS), Trieste, Italy, has prepared a training programme on POPs and is implementing it for national officials of developing countries

6. Information on the proposed executing organization (if different from above. The grant has to be executed by an organization in the requesting country):

The Eritrea Government nominated the Department of Environment of the Ministry of Land, Water, Environment and Cadastre Office as the National Executing Agency (NEA) of this project. UNIDO and the proposed NEA will sign an agreement with a detailed Terms of References for the Project implementation.

Detailed information of the executing agency is attached as Annex 1.

7. Date the proposal was submitted to a GEF Implementing/Executing Agency: 25 November 2005

8. Date the proposal was submitted to the GEF Secretariat: 6 March 2006, resubmitted 26 May 2006

9. Date the proposal was approved:

10. Date of first Disbursement:

PROJECT DESCRIPTION

The proposed project is designed to assist the country to implement the enabling activities to facilitate early action on the implementation of the Stockholm Convention on Persistent Organic Pollutants (POPs) in Eritrea. The project description will be based on discussions held between government officials from stakeholder ministries, such as the Ministry of Lands, Water, Environment and Cadastre Office, Ministry of Agriculture, Ministry of Health, Ministry of Mines and Energy, Eritrean Electrical Corporation and UNIDO.

Background

Eritrea's development efforts gave priority to the rehabilitation and reconstruction of the economic and social infrastructures destroyed during the liberation of war from 1961 to 1991. Numerous national economic, social and environmental strategies have been formed and are being implemented since 1993. Among these are the Macro Policy of 1994 for the stabilization, reconstruction and development, the Comprehensive Development Framework for eliminating poverty, reducing inequity, and improving opportunity for the people and the National Environmental Management Plan of 1995 for sustainable development and for environmental protection and management. These efforts highlight the strong will and commitment of the government to provide better environment for its citizens.

Eritrea is party to the Stockholm Convention, Basel Convention, Rotterdam Convention, Vienna Convention for the Protection of the Ozone Layer, Montreal Protocol and the FAO Code of Conduct on the Distribution and Use of Pesticides. It is also party to the Convention on Biological Diversity, the Convention on Combating Desertification, the Framework Convention for Climate Change and the Kyoto Protocol. The country is committed to fulfil the requirements of the Stockholm Convention.

Despite significant efforts and accomplishments after the war, severe barriers hinder the development and implementation of proper environment and chemicals related management practices and measures.

The current key environmental issues and problems of the country are the following:

- Lack of proper management system for sound management of the environment and chemicals;
- Environmentally unsound life-cycle-management of industrial, agricultural and consumer chemicals;
- Abandoned industrial facilities;
- Water, soil and air pollution for which environmental and pesticide laboratories are critically needed;
- Degradation of agricultural land, loss of forestry and biodiversity; and
- Impact of climate change

Available information suggests high degree of contamination of the environment especially by pesticides and DDT. Obsolete pesticides have accumulated in enormous quantities and stored under uncontrolled manner sometimes in open air. Quantities increased continuously due to lack of proper pesticide management schemes, which would prevent the accumulation of new stocks of pesticides. The main sources include polluted agricultural land and abandoned industrial sites that represent potential hotspots. Improper management of landfills, out-dated technologies used in industrial processes, lack of proper hospital waste disposal operations as well as lack of awareness on the part of the general population further encumbers the situation.

Persistent Organic Pollutants (POPs) are not recognized in the current legislation. Information on their import, use, stocks, contaminated sites, releases to the environment and human health related issues are scattered. Therefore, this enabling activities project will address special interest to overcome these barriers and develop accurate inventories of Annexes A, B and/or C POPs in the country with multi-stakeholders approach. It also aims to find sustainable solutions for the disposal of the identified stockpiles in the context of hazardous waste management strategy and develop policies and regulatory schemes to control and manage chemicals and POPs substances in particular. It will put special emphasis on the development of a comprehensive management plan for chemicals in general and for POPs in particular. Therefore, during project implementation, the National Chemical Profile will also be prepared. As per Article 7 of the Stockholm Convention, the NIP will be integrated into the "National Environmental Management Plan for Eritrea" that has been accepted by the Government in 1995.

Project objectives

The overall objective of the proposed EA project is to strengthen national capacity and capability to prepare a National Implementation Plan for the management of POPs. This plan will provide a basic and essential level of information to enable policy and strategic decisions to be made and identify priority activities that Eritrea should undertake in order to meet the requirements of the Stockholm Convention. The NIP will be endorsed by all stakeholders prior its transmission to the Conference of Parties.

Project Activities

Activity 1. Co-ordinating Mechanism and Process Organization

1.1 Needs assessment and strengthening of National Focal Point

The technical and human resources of the National Executing Agency (NEA) will be assessed. A national project office will be established within NEA and manned by a full-time National Project Coordinator (NPC) who will provide the overall project coordination. During the first two months of the project, a Legal Advisor will assist the NPC in order to facilitate legal aspects of the project such as procedures for tenders, contract and agreement preparation. An Administrative Assistant will facilitate the coordination and organizational effectiveness of project activities.

1.2 Formation of multi-stakeholder national co-ordinating committee

A National Steering Committee (NSC) will be formed comprising the following bodies:

- Ministry of Land, Water, Environment and Cadastre Office (Department of Environment)
- Ministry of Agriculture (Department of Regulatory Services)
- Ministry of Health (Environmental Health Unit)
- Ministry of Trade and Industry (Department of Industry)
- Ministry of Mines and Energy (Eritrean Electrical Corporation)
- Ministry of Transport and Communications (Department of Transport)
- Ministry of Finance (Department of Customs)
- University of Asmara

Representatives from NGOs, the GEF Operational Focal Point, POPs Focal Point and the NPC will also be represented at meetings. The final composition of the committee will be established during the project implementation.

1.3 Drawing-up overall work plan and assigning responsibilities amongst government departments and other stakeholders

The NEA with the guidance of the NPC will prepare the work plan for review and approval by the NSC. Strong emphasis will be placed on the participation of the private sector and Civil Society to ensure their active involvement in the execution of the work plan. All responsibilities, timelines and the budget will be clearly spelled out in order to guarantee the fast, safe and accurate execution of the project. The parallel executable activities will be underlined for timely effective implementation.

1.4 Identification and sensitisation of main stakeholders

The NPC will prepare a preliminary directory of stakeholders and canvass their support and cooperation for the enabling activities. This directory will form the basis for awareness raising and information exchange activities, commencing with the inception workshop.

1.5 Inception workshop for high-level commitment

A one-day workshop will be held in Asmara to raise awareness of POPs issues and the enabling activities project amongst the widest possible range of stakeholders. An international expert will facilitate discussion amongst the project officials and the approximately 60 participants. The agenda will focus on discussion of the planned activities and timeframes necessary to meet the obligations of the Stockholm Convention. In addition, the project structure with the work plan, responsibilities of the involved experts and the necessary project related reporting procedures will be presented and discussed. Commitment from the highest policy level for the successful project implementation and a pool of national experts will be the output of the inception workshop.

Activity 2. Preliminary POPs Inventories and Assessments of National Infrastructure and Capacity

2.1 Training on inventory procedures and constitution of task teams responsible for inventories

A training workshop will be held on inventory procedures for the national experts identified at the inception workshop. International experts will conduct the training, which will include general introduction to the Stockholm Convention and the POPs chemicals. The training will further elaborate:

- procedures for collecting POPs-related information;
- undertaking of preliminary inventories of trade, use and stocks;
- undertaking of inventories of releases into air, water, soil, products and wastes;
- initial surveying of contaminated sites;
- monitoring and reporting methodologies using established guidelines;
- assessment of the current public information and awareness on POPs;
- identification of POPs-related health impacts; and
- obligations of the Stockholm Convention with regard to POPs management and infrastructure.

The inventory training will provide a detailed guidance on the development of the following technical reports:

- Institutional, policy and regulatory framework including:

- Environmental policy, sustainable development policy and general legislative framework.
- Roles and responsibilities of ministries, agencies and other governmental institutions involved in POPs lifecycles (from source to disposal, environmental fate and health monitoring).
- Relevant international commitments and obligations.
- Description of existing legislation and regulations addressing POPs (manufactured chemicals and unintentionally produced POPs).
- Key approaches and procedures for POPs chemical and pesticide management including enforcement and monitoring requirements.

The training will last for four days. The first three days are for the theoretical parts and for formation of four to six task teams depending on the areas of expertise. The task teams will carry out the activities detailed below. The last day is on-the job training that will demonstrate the inventory process of Annex A, B and C chemicals.

2.2 Preparation of the National Chemical Profile and Action Plans

A national profile to assess the national infrastructure for the management of chemicals will be prepared by national experts following recognised methodologies. Relevant structures of the national infrastructure will be reviewed with particular emphasis on their ability to manage the obligations of the Stockholm Convention and other chemicals related conventions. Action plans addressing the identified weaknesses will also be prepared during the NIP development phase.

2.3 Assessment of the institutional and infrastructure capacity including policy and regulatory framework

One of the teams will gather relevant information regarding the current legal, institutional, infrastructure capacity and enforcement measures concerning the environment and chemicals, POPs in particular. Capabilities and responsibilities of relevant institutions to play a full role, within the Conference of the Parties, and to be capable of meeting the obligations of the Convention will be reviewed. The changes necessary to meet the compliance challenges of the Stockholm Convention will be determined. This activity will start in the 3rd project month and be finalized in three months.

2.4 Preliminary assessment with respect to Annex A, part I chemicals (POPs pesticides)

One of the teams will gather relevant information regarding the import, use, distribution export and stocks of POPs pesticides containing products from relevant institutions. This activity will start in the 3rd project month and be finalized in two months.

2.5 Preliminary assessment with respect to Annex A, part II chemicals (PCBs)

Task team will undertake the preliminary inventory of stocks, import, export, use of PCB-containing equipment and wastes. The assessment does not include sampling and analysis of PCBs since there is no existing specialised laboratory in the country. The assessment will depend on the history of import of PCBs in the government files and private companies. Based on the assessment, an empirical decision will be considered to determine the need for action to be undertaken. However, the project will be seeking advice from an accredited laboratory. This work will commence in the 3rd month and be finalized by the 5th project month.

2.6 Preliminary assessment with respect to Annex B chemicals (DDT)

One of the teams will gather relevant information regarding the import, use, distribution, export and stocks of DDT and DDT-containing products from relevant institutions such as agriculture, industry, trade, transport, customs and others. This activity will start in the 3rd project month and be finalized in two months.

2.7 Preliminary inventory of unintentional releases to the environment

Task team will use internationally accepted methodologies to estimate the total unintentional production of POPs. They will assess the scenarios developed from the different toolkits used and review their validity to Eritrea. This activity will be completed in two months.

2.8 Preliminary inventory of stockpiles, contaminated sites and wastes

One of the task teams will collect information on the current POPs contaminated sites. Sources include the reports of those task teams, which undertook the activities listed under 2.4, 2.5, 2.6 and 2.7 as well as local translated documentation on treatment and disposal of stockpiles prepared under the Africa Stockpile Programme (ASP) project. Where priority contaminated sites are identified, a preliminary sampling programme will be undertaken. Two months are budgeted for this activity.

2.9 Summary of future production, use and releases of POPs – requirements for exemptions

This short summary will be developed after the inventories are ready. The requirements for exemptions can also be assessed once the preliminary information is collected and discussed. One month is assigned to this task.

2.10 Assessment of monitoring and R&D capacity

The technical and human resources available for the monitoring enterprise performance in relation to current environmental and chemical management regulations will be assessed. The changes necessary to meet the initial and continuing requirements of the Stockholm Convention will be determined. An assessment on availability of national and human resources for the analysis and evaluation of POPs-containing products will be made. Human health impacts of POPs will also be collected. One team will be engaged for two months for this activity.

2.11 Assessment of current level of information, awareness and education among target groups; existing communicate system; mechanism for information exchange with other Parties to the Convention

One task team will assess the current practices for providing information on environment and chemicals. Target groups will be screened using carefully developed questionnaires to assess their level of awareness on POPs. The success of all future activities will be compared to this baseline. This team will also elaborate the information exchange with other parties to the Convention and at the national level.

2.12 Relevant activities of non-governmental stakeholders

One of the task team will undertake a thorough survey of the NGOs in the field of chemicals and the environment, specifically POPs. One month will be provided for this activity.

2.13 Identification of POPs related human health and environmental issues of concern; basic risk assessments

One of the teams will collate and review available health information related to environmental exposure to POPs. Additionally, in conjunction with information from other inventory teams, prepare an initial assessment of POPs-related risks faced by the population of Eritrea. Particular emphasis will be placed on communities in areas where high-levels of POPs contamination or environmental release are suspected. The team will provide recommendations for further health-related studies that may need to be undertaken.

2.14 External independent review of initial national POPs inventories

Draft versions of the preliminary inventories described above will be submitted to the NSC that will review the inventories and provide comments and recommendations. The expert teams will revise the preliminary inventories taking into account the comments and recommendations received. Final preliminary inventories will be submitted to the NSC for approval.

2.15 Workshop on preliminary inventories

Final draft preliminary inventories and assessments will be submitted to NSC for approval. The NEA, on behalf of the NSC, will organize a one-day meeting in Asmara to review and discuss the outcomes. It is expected that approximately 30 persons representing all main stakeholders will be invited.

Activity 3. Priority Setting and Determination of Objectives

3.1 Development of criteria for prioritisation

National experts will review the inventories and assessments and develop criteria for the ranking of priority actions recommended by the various expert teams. These criteria will take into account health, environmental and socio-economic impacts and the availability of alternative solutions. In preparing these criteria, the experts will take advantage of experience of risk-reducing technologies and priority setting undertaken in other countries. The proposed criteria will be submitted to the NSC for review and approval.

3.2 Organization of a national priority validation workshop

A two-day workshop will be organized for 60 participants to validate the criteria and national objectives established by the NSC and to discuss and endorse the draft Prioritisation Report. Following the meeting, the expert will prepare a final report, setting out criteria, national objectives and priorities taking into account the comments made by the NSC and participants.

Activity 4. Formulation of National Implementation Plan including specific Action Plans on POPs

4.1 Training and assigning mandates to task teams to develop proposals for addressing priorities

Based on the outcome of the validation workshop, the NSC will propose to the NEA the recruitment of experts to prepare action plans necessary to address the national priority issues. International experts will present training in the development of Action Plans, strategies and the NIP for the experts recruited.

4.2 Identification of management options, including phasing out and risk reduction options

Technical reports setting out management and risk-reduction options to address national priority issues will be prepared. These reports will take into account the increased effectiveness and efficiencies to be gained from building, wherever possible, on current legislation, institutional

structures and capabilities. One team will be appointed for two months to prepare these reports for submission to the NPC.

4.3 Determination of the need for the introduction of technologies, including technology transfer, possibilities of developing indigenous alternatives

Internationally available alternative technologies, techniques and strategies will be reviewed to assess their ability to meet requirements for the elimination, reduction and disposal of POPs in Eritrea. This review will use the criteria based, *inter alia*, upon those set out in part V of Annex C (unintentional production) of the Convention in order to select the best available techniques (BAT) and environmentally sound alternatives most appropriate for Eritrea and include consideration of indigenous methods that provide protection from pests and diseases for which POPs chemicals may be currently employed. One task team will be recruited for a two-month period to undertake this review and prepare reports for the NSC.

4.4 Assessment of the costs and benefits of management options

Cost benefit analyses will be prepared to evaluate the economic feasibility and costs associated with the recommended management options set out in the technical reports prepared during the activities mentioned above. One team will prepare these reports for the NSC over a period of two months.

4.5 Development of a national strategy for information exchange, education, communication and awareness raising

A national strategy for information exchange, education, communication and awareness raising will be prepared in accordance with Articles 9 and 10 of the Convention. A mechanism for information exchange will be proposed. One team will be engaged for two months to prepare this strategy and submit it to the NSC.

4.6 Defining expected results and targets

The technical, management, BAT and cost–benefit reports, together with the strategy for information exchange will be discussed by the NSC. Proposed actions will be presented for discussion and endorsement at a fourth stakeholder workshop to be held in the 9th project month.

4.7 Development and formulation of a detailed implementation plan, including an action plan for unintentional by-products, PCBs and, where appropriate, for DDT and other POPs as prioritized

Preparation of the NIP will begin in the 7th project month with the collation of all component reports prepared in earlier activities. It will take into account decisions of the NSC as well as comments and endorsements received from the various stakeholder workshops. The draft NIP will be presented to the NSC for review. The NPC with the help of all teams will be engaged for four months to prepare the draft NIP and make any necessary revisions. The revised draft will be submitted for review by an independent consultant.

4.8 Preparation of initial funding request package for implementation, including cost estimates and incremental costs

Proposed actions identified in the NIP will be budgeted and funding request packages prepared. These funding packages will establish implementation timetables consistent with the obligations of Eritrea under the Convention. One team will be engaged in the 10th project month to undertake this activity.

4.9 Expert review of Implementation Plan

An independent consultant will review and comment on the revised draft NIP taking into account, in particular, the requirements set out in the Stockholm Convention and in the "Interim Guidance for developing a National Implementation Plan for the Stockholm Convention".

5. Endorsement of NIP by Stakeholders

5.1 Submission of final draft NIP to stakeholders for comments

To facilitate review and the building of consensus around the NIP, stakeholders will be invited to provide written comments during a two weeks consultation period. The circulation of a questionnaire prepared by the NPC with the revised draft NIP, will aid this process. Written submissions will be gathered by the NPC and taken into account in the preparation of the final draft NIP. The independent consultant will be retained for a period of two months to continuously improve the draft NIP, hold a workshop for high-level government officials and decision makers to endorse the NIP in order to submit it as indicated in Activity 5.2 below.

5.2 Final workshop to review and endorse the NIP

A workshop will be organized for all the stakeholders and relevant governmental bodies to review and endorse the final draft NIP. The workshop will also seek to obtain stakeholder commitment of the resources necessary for the successful implementation of the NIP. Approximately 60 people, including high-level governmental officials, national decision makers and international development partners will be invited for this one-day meeting.

A press conference will be held to inform the public.

5.3 Submission of the NIP within the timetable set out in the Convention

A one-day seminar will be held for relevant government officials and high-level decision makers for immediate approval of the NIP. Following the seminar, the NIP will be submitted, in English, to the Secretariat of the Convention for transmission to the Conference of the Parties.

IMPLEMENTATION PLAN

The Department of Environment (DoE) of the Ministry of Lands, Water, Environment and Cadastre Office of Eritrea is charged with the protection of the environment, co-ordination of the actions of the various institutions in this field and the preparation and supervision of relevant legislations. It is also responsible for the national implementation of actions required under international environmental agreements. The Ministry will be the National Executing Agency (NEA) for the proposed enabling activities project and has requested UNIDO assistance in submitting its proposal to the GEF. On approval of the proposal, UNIDO and NEA will agree on a subcontract for the national administration of the project.

Under the terms of this subcontract, the NEA will, *inter alia*;

- call principal stakeholders to form a National Steering Committee (NSC) to oversee and coordinate the successful implementation of the enabling activities and to lobby high-level commitment to the objectives of the Stockholm Convention;
- establish a national project office within the Programmes and Projects Division charged with the successful implementation of the enabling activities;

- appoint a National Project Coordinator (NPC) with day-to-day responsibility for the management and coordination of the enabling activities and reporting to the NSC;
- agree with UNIDO the appointment international experts as might be required to build national capacities to ensure the successful preparation of the NIP.

The NSC will:

- have meetings on a regular basis;
- agree working arrangements and implementation plans with the NPC and the NEA;
- oversee the work of the national experts engaged to undertake the various studies required for the NIP and receive and review their reports;
- lead stakeholder workshops to develop consensus and commitment to NIP objectives and plans.

The NPC will:

- have day-to-day responsibility for the management and coordination of the enabling activities, including subcontract budgets and reporting to the NSC;
- appoint national experts as necessary to undertake the various studies required during the course of the project using Terms of Reference agreed by the NSC and ensure the quality of their work;
- provide a secretariat function to the NSC and stakeholder workshops;
- provide a focal point for information about the implementation of the enabling activities and serve as a publicly-accessible National Information Centre on POPs; and
- report regularly to the NPC, to the NEA and to UNIDO, the progress of the project and the disbursement of project funds.

The Legal Advisor will:

- provide legal advice to the NPC on project related matters;
- prepare tenders, agreements, official press releases; and
- report regularly to the NPC.

The Administration Assistant will:

- provide day-to-day administrative back up for the NPC; and
- facilitate the secretariat function for the NSC with the guidance of the NPC.

UNIDO will:

- upon request of the NEA, appoint international experts, wherever possible drawn from the region, for specific project tasks;
- monitor project execution by means of quarterly progress reports and close contact with the NPC;
- organize a mid-term evaluation in line with GEF guidelines at the end of the first year; and
- evaluate the efficiency of the project management, including outcomes, the budget and timelines.

	PROJECT IMPLEMENTATION PLAN												
	DURATION OF PROJECT												
	Activities	PROJECT MONTHS											
	Completion of major activities	1	2	3	4	5	6	7	8	9	10	11	12
1	**Determining Co-ordinating Mechanism and Organizing Process**												
1.1	Assessment needs of Focal Point												
1.2	Strengthening of multi-stakeholder national coordinating committee												
1.3	Drawing up overall work plan and assignment among government departments and other stakeholders												
1.4	Identification and sensitisation of main stakeholders												
1.5	Organisation of inception workshop												
2	**Establishing a POPs Inventory and Assessing National Infrastructure and Capacity**												
2.1	Training on inventory procedures, constitution of task teams												
2.2	Preparation of the National Chemical Profile and action plans												
2.3	Assessment of the institutional and infrastructure capability, policy and regulatory framework												
2.4	Assessment with respect to Annex A, part I chemicals (POPs pesticides)												
2.5	Assessment with respect to Annex A, part II chemicals (PCBs)												
2.6	Assessment with respect to Annex B chemicals (DDT)												
2.7	Inventory of unintentional releases to the environment												
2.8	Inventory of stockpiles, contaminated sites and wastes												
2.9	Summary of future production, use and releases of POPs – requirements for exemptions												
2.10	Monitoring and R&D capacity												
2.11	Current level of information, awareness and education among target groups												
2.12	Relevant activities of non-governmental stakeholders												
2.13	Identification of POPs related human health and environmental issues of concern												

	PROJECT IMPLEMENTATION PLAN												
_	DURATION OF PROJECT												
	Activities	PROJECT MONTHS											
	Completion of major activities	1	2	3	4	5	6	7	8	9	10	11	12
2.14	External independent review of initial national POPs inventories												
2.15	Workshop on preliminary inventories												
3	**Priority Setting and Determining Objectives**												
3.1	Development of criteria for prioritisation												
3.2	Organization of national priority validation workshop												
4	**Formulating a National Implementation Plan, and specific Action Plans on POPs**												
4.1	Assign mandates and training to task teams to develop proposals for addressing priorities												
4.2	Identification of management options incl. phasing out and risk reduction options												
4.3	Need for introduction of technologies												
4.4	Assessment of the costs and benefits of management options												
4.5	Development of a national strategy for information exchange, education awareness												
4.6	Defining expected results and targets												
4.7	Development and formulation of detailed workplan												
4.8	Preparation of initial funding request package for implementation												
4.9	Expert review of the implementation plan												
5	**Endorsement of NIP by Stakeholders**												
5.1	Submission of final document for stakeholder comments												
5.2	Final workshop												
5.3	Submission of NIP to COP within the timetable set out in the Convention												

GEF PROJECT BUDGET

Component	Name of units	Number of Units	Unit Cost (US$)	Total Cost (US$)
1. Coordinating mechanism and organizing process				
National Project Coordinator (NPC)	work months	12	2,500	30,000
National Legal Advisor	work months	2	2,000	4,000
Administration Assistant to the NPC	work months	12	800	9,600
Inception workshop	participants/day	60\1	100	6,000
Travel (national experts) *	person	16	350	5,600
Equipment (computers, software)		1	6,000	6,000
Sub-total				*61,200*
2. Inventory and assessment of national infrastructure capacity				
Technical assistance (local)	work months	30	1,500	45,000
Technical assistance (International)	work months	3	13,000	39,000
Training on inventory procedures	participants/day	20\3	200	12,000
Sampling and analysis (subcontract)	sample	300	100	30,000
Workshop on preliminary inventories	participants/day	15\1	200	3,000
Travel (national experts) *	person	80	250	20,000
Sub-total				*149,000*
3. Priority setting and formulation of NIP				
Technical assistance (local)	person months	4	1,500	6,000
National priority validation workshop	participants/days	60\2	100	12,000
Travel (national experts) *	person	60	50	3,000
Sub-total				*21,000*
4. Stakeholder involvement				
Technical assistance (local)	work months	25	1,500	37,500
Technical assistance (International)	work months	2	13,000	26,000
Training on NIP development	participants/day	20\1	200	4,000
Workshop on defining results and targets	participants/day	20\1	200	4,000
Travel (national experts) *	person	40	100	4,000
Sub-total				*75,500*
5. Endorsement of NIP by stakeholders				
Technical assistance (local)	work months	2	1,500	3,000
Final workshop	participants/day	60\1	100	6,000
Others (Publicity)	1	1	5,000	5,000
Travel (national experts) *	person	60	100	6,000
Sub-total				*20,000*
Miscellaneous: communication, printing costs, translation, etc (~2%)				6,500
Contingency (~4%)				13,300
Total Cost of Enabling Activities				**346,500**

* The Department of Environment do not have vehicles. They need to engage the Governmental Garage, other ministries or public car hires for transportation, which is costlier than using their own vehicles. This is the reason for the higher transportation costs compared to other countries, with similar size.

ANNEX 1
DETAILED INFORMATION ON THE NATIONAL EXECUTING AGENCY

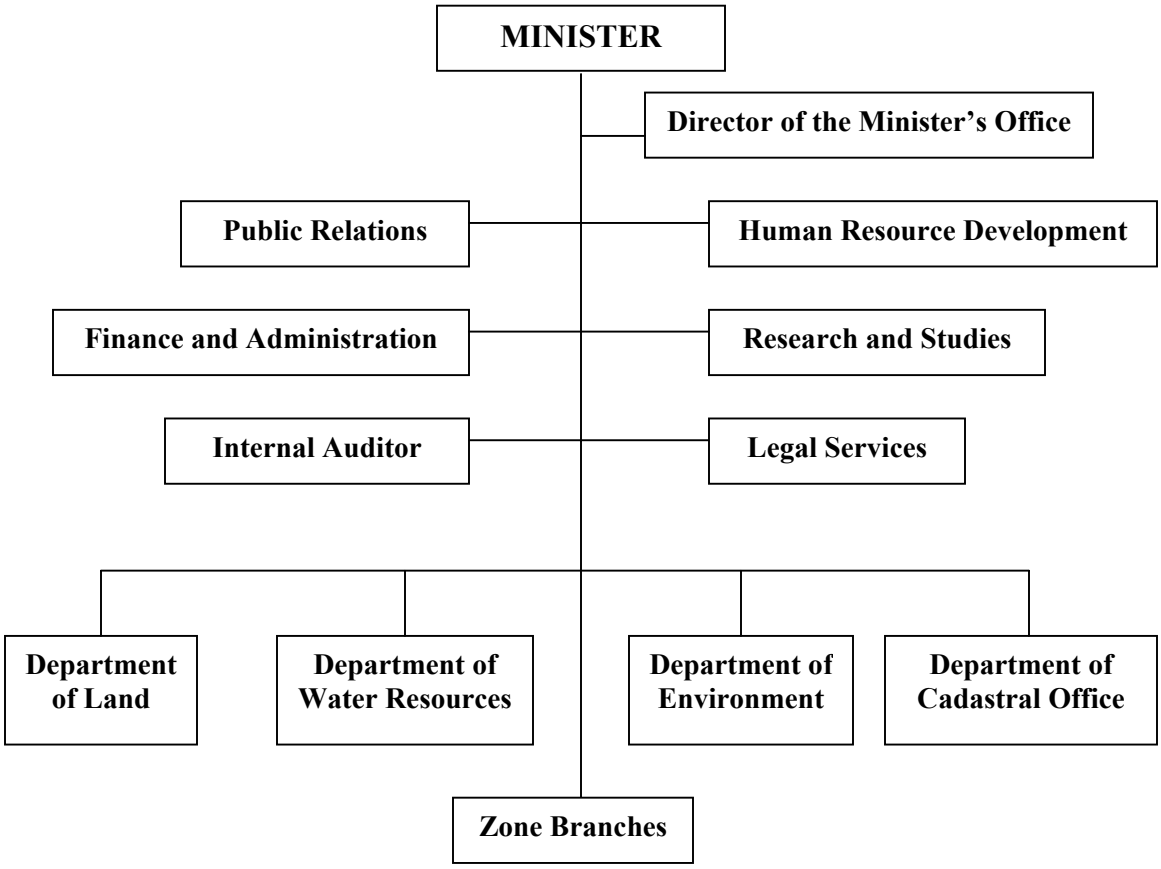
The Department of Environment is accountable to the Ministry of Land, Water, Environment and Cadastre Office and shall have the following duties and responsibilities:

- Manages the Department's affairs on the basis of mandate and responsibility bestowed by the Minister and Ministerial Advisory Body on Environment.
- Steps up the institutional structural organization of the Department of Environment as well as a committee of experts or advisors drawn from various relevant ministries and articulates their specific tasks.
- Coordinates national and regional environmental programmes.
- Ensures that the activities performed by the department are in harmony and in conformity with the existing laws and policies.
- Plans short- and medium term programmes that reflect the objectives of the department while ensuring and supervising their effective implementation.
- Preserves that the environmental issues such as desertification, conservation of both terrestrial and marine bio-diversity, climate change, environmental assessment and control, environmental auditing and monitoring, environmental research and studies (e.g. alternative source of energy) are properly addressed. Monitors their effective implementation and works for further improvement through establishing necessary international linkages.
- Collects timely and accurate environmental information that are beneficial to the country by establishing contacts with other international organisations and works for effective utilization.
- Establishes workable links with all relevant Ministries, Organizations and Zobas while monitoring of environmental issues are properly addressed.
- Studies and closely monitors everything pertaining to environmental matters on national and international levels and submits periodic reports to the Minister.
- Prepares various environmental related projects and supervises their proper implementation.
- Establishes sound contacts with funding agencies and organizations in order to implement planned projects, (seeking the support (both technical and financial) of suitable inter-governmental, non-governmental, national (bilateral), and private sources to assist the various planned environmental related projects).
- Preserves and ensures that internal and external training opportunities are made available to enhance the working capacity of the staff in the different Divisions of the Department.
- Supervises and coordinates activities carried out in the Divisions of the Department and ensures that they are done in an organized and efficient manner.
- Monitors and documents implementation of proclamations, policies information regarding environment; and tries hard to ensure that efficient and smooth method is introduced through the establishment of necessary communication network with other stakeholders.

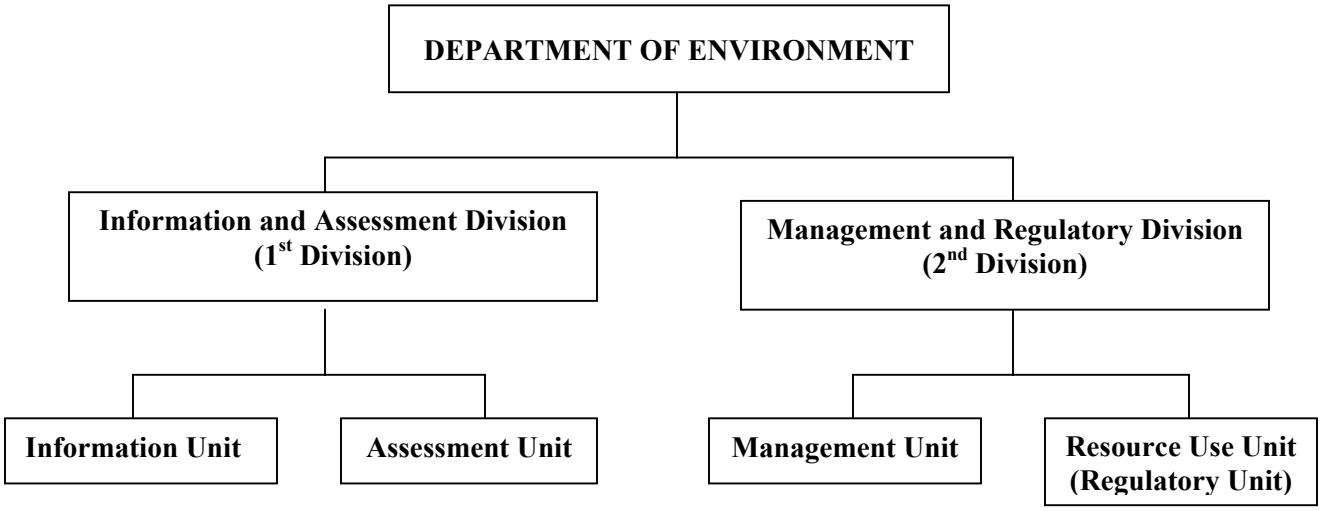
- Assesses and prepares timely reports on visible environmental impacts arising from various development activities and submits a proposal to higher bodies on appropriate measures to be taken.
- Undertakes all necessary efforts concerning the implementation of the environmental impact assessment and evaluation as well as management of waste and toxic substances. Makes efforts to underline the importance and need for environmental impact assessment while enhancing sustainable development through establishing true partnership with other relevant ministries and officials.
- Documents and properly preserves reports pertaining to administrative affairs undertaken.
- Prepares annual reports about activities carried out.
- Plans work programmes for the next fiscal year and submits it to the Minister.
- Ensures that annual report concerning "The State of the Environment" is prepared.
- Makes sure that sufficient human labour material and equipment is in place for every Division.
- Develops and formulates environmental laws and policies that would guarantee improved and sustainable development.
- Works and monitors actively for the enforcement of all environmental conventions Eritrea is committed to and makes certain that they are in conformity and consistent with the national environmental laws.
- Performs any additional task assigned by the Minister as provided in the environmental proclamation.

The organization chart below indicates the connectivity within the of the Ministry of Land, Water, Environment and Cadastre Office

Organizational Structure of Ministry of Land, Water, Environment and Cadastre Office



The Department of Environment has the following divisions:



ANNEX 2

DETAILED INFORMATION ON THE PRESENT STATE OF POPS

General information on POPs

Pesticides

	Description
DDT	Insecticide used on agricultural crops, especially cotton, and insects that carry diseases like malaria and typhus. DDT is still widely used in developing countries mainly for mosquito control and also for the production of Dicofol.
Aldrin and dieldrin	Insecticides used for crops like corn and cotton. Also used for termite control.
Chlordane	Broad spectrum contact insecticide used on agricultural crops including vegetables, small grains, maize, other oilseeds, potatoes, sugarcane, sugar beets, fruits, nuts, citrus, cotton, and jute. Used on home lawns and gardens. Also used for termite control.
Endrin	Insecticide used mainly on field crops such as cotton and grains. Used as a rodenticide to control mice and voles. Also used to combat birds.
Heptachlor	Stomach and contact insecticide, used primarily against soil insects and termites. Also used against cotton insects, grasshoppers, some crop pests, and to combat malaria.
Hexachlorobenzene (HCB)	Fungicide used for seed treatment of wheat, onions, and sorghum. Also found as impurity in several pesticide formulations. Also found as an industrial by-product.
Mirex	Stomach insecticide used to combat fire ants and leaf cutters, harvester termites, mealy bug, and yellow jacket wasps. Also used by a fire retardant in plastics, rubber, and electrical goods.
Toxaphene	A mixture of more than 670 chemicals and an insecticide primarily used to control insect pests on cotton and other crops. Used to control insect pests on livestock and to kill unwanted fish in lakes.

Polychlorinated biphenyls (PCBs)

Major emission sources of PCBs are: certain high temperature industrial processes such as pyrogeneous emission from the burning, firing, combustion of fossil fuels, waste incineration, road transport, and crude steel production. PCBs are used in synchronous condensers and capacitors as a good dielectric fluid, in transformers as unburnable heat exchanger, for lubrication and hydraulic oils, in impregnators, as an insulator liquid and as refrigeration liquid.

By-products: PCDD/PCDFs (polychlorinated dibenzo-P-dioxins and dibenzofurans) and Hexachlorobenzene (HCB)

PCDD/Fs have never been produced intentionally. They are formed as by-products of numerous industrial activities and combustion processes. Almost all of the 210 individual congeners have been identified in emissions from thermal and industrial processes and consequently PCDD/Fs are found as mixtures of individual congeners in environmental matrices such as soil, sediment, air and plants and lower animals. PCDD/Fs, particularly the higher chlorinated, are poorly soluble in water, have low volatility, and adsorb strongly to particles and surfaces. Thus, PCDD/Fs are

only found in minute concentrations in water and are largely immobile once absorbed to soil. They bioaccumulate in the fatty tissues of animals and humans.

Major possible sources of dioxins and furans are waste incineration, thermal metallurgical processes, power plant combustion of fossil fuels, residential combustion and firing of wood and coal at households, specific chemical processes releasing intermediates, PCB based transformers and electric arc furnace.

Primary sources of environmental contamination with PCDD/Fs in the past were due to the production and use of chloro-organic chemicals including the pulp and paper industry. PCDFs were/are formed as inadvertent by-products in the production and use of polychlorinated biphenyls (PCBs) and, in combination with PCDDs, in the production of chlorophenols and have been detected as contaminants in these products. PCDFs can also be found in residual waste from the production of vinyl chloride and the chloralkali process for chlorine production. Factors favourable for the formation of PCDD/Fs are high temperatures, alkaline media, presence of UV-light, and the presence of radicals in the reaction mixture/chemical process.

Major sources of Hexachlorobenzene (HCB) are almost the same as dioxins and furans: waste incineration, thermal metallurgical industries, use of chlorinated fuels in furnace installations, combustion of fossil fuels, firing of chlorinated compounds, use of solvents and wood preservers and electric arc furnace.

Country background

Eritrea is situated in the horn of Africa north of the equator along the Red Sea. It is bordered with Sudan, Ethiopia and Djibouti. It has an area of 122,000 square kilometres. Administratively the country is divided into six regions, which are called **Zobas.**

Eritrea was awarded to Ethiopia in 1952 as part of a federation. Ethiopia's annexation of Eritrea as a province 10 years later sparked a 30-year struggle for independence that ended in 1991 with Eritreans defeating governmental forces; independence was overwhelmingly approved in a 1993 referendum. A two-and-a-half-year border war with Ethiopia that erupted in 1998 ended under UN auspices on 12 December 2000. Eritrea currently hosts a UN peacekeeping operation that is monitoring a 25 km-wide Temporary Security Zone on the border with Ethiopia. An international commission, organized to resolve the border dispute, posted its findings in 2002 but final demarcation is on hold due to Ethiopian objections.

Since independence from Ethiopia on 24 May 1993, Eritrea has been facing several problems. The economy is largely based on subsistence agriculture, with 80% of the population involved in farming and herding. The Ethiopian-Eritrea war in 1998-2000 severely hurt Eritrea's economy. GDP growth fell to zero in 1999 and to -12.1% in 2000. The May 2000 Ethiopian offensive into northern Eritrea caused some $600 million in property damage and loss, including losses of $225 million in livestock and 55,000 homes. The attack prevented planting of crops in Eritrea's most productive region, causing food production to drop by 62%. Even during the war, Eritrea developed its transportation infrastructure, asphalting new roads, improving its ports, and repairing war damaged roads and bridges. Since the war ended, the government has maintained a firm grip on the economy, expanding the use of the military and party-owned businesses to complete Eritrea's development agenda.

Eritrea is one of the poorest countries of the world, with GDP per capita of about $200. The GDP (purchasing power capacity) was $4.154 billion in 2004, which means a 2.5% growth compared to previous year. Agriculture has 12.4%, industry has 25.9%, while the services sector has 61.7% of the GDP.

Country-specific information on POPs pesticides

Production distribution, use, export, import procedures of POPs

Eritrea has never produced POPs pesticides. After independence due to the improper legislation, pesticides entered the country in uncontrolled manner and quantities. According to the Ministry of Agriculture, Eritrea imported about 80 tonnes of pesticides per year from 1993-2003. The previous practice of importing pesticides without any properly defined regulatory mechanism resulted the import of POPs pesticides in large amounts Aldrin and dieldrin could be imported until 2003, while DDT is still on the positive list. Such unregulated practices also increased the accumulation of obsolete stocks endangering human health and the environment. Addressing that regulatory gap the Department of Regulatory Services issued Regulatory Notice No. 3 of August 2004. The notice is a guideline pending the issuance of a formal pesticide proclamation, for ensuring the proper importation, storage, use, handling and disposal of pesticides. Annex 1 of this notice is the National Pesticides List. It registers the pesticides, which are allowed to be imported to Eritrea. Among the POPs pesticides only DDT appears, with a restriction for use only for the purpose of malaria vector control.

Illegal import is suspected to be present especially through the Sudanese border. Currently, in most cases pesticides are imported by the Ministry of Agriculture and private enterprises. The Ministry strictly controlled the use and handling of pesticides. They provide trainings for the farmers and ensure the use of personal protective gears.

The current legislation related to POPs substances is detailed in Table 1:

Table 1: Summary of Eritrea's status regarding the 12 POPs

Name of POPs	Situation in Eritrea
DDT	Restricted for vector control
Aldrin	Not allowed
Dieldrin	Not allowed
Chlordane	Not allowed
Endrin	Not allowed
Heptachlor	Not allowed
Hexachlorobenzene	Not allowed
Mirex	Not allowed
Toxaphene	Not allowed
PCBs	Not regulated
Unintentional by-products	Not regulated

Malaria is one of the most important endemic diseases in Eritrea affecting 67% of the total population of the country. Malaria is distributed widely, covering about 75% of the land surface of the country. The disease is not only limited to the lowland areas; under appropriate epidemiological conditions it can reach the highland areas up to 2200 metres. In 1995 the disease accounted for over 43 per thousand of outpatient morbidity. The Ministry of Health has adopted the WHO strategy for malaria control:

- early diagnosis
- prompt treatment, and
- environment management.

This strategy is being implemented within the policy of the primary health care system. The National Malaria Control Programme (NMCP) is responsible for controlling the disease. They have offices at the Zobas and sub-Zobas level. The morbidity of the disease is registered weekly at the most seriously affected regions while in other regions reporting is done monthly. Based on the reports selected spraying programmes are undertaken in the areas, where outbreak is suspected. Affected communities are encouraged to use bed nets, clean the surroundings and drain water bodies and fill small water pound with soil. NMCP avoids extensive spraying with DDT. However for indoor use DDT is applied until affordable, effective and safe alternatives are not found and introduced. Due to these measures, the incidences of malaria significantly reduced in the last five years.

DDT can only be imported with the approval of the Drug Control Division of the Ministry of Health. DDT is mainly imported from China in 1kg plastic bags. Imported quantities vary from year to year, but approximately 15 tonnes are used annually. After the shipment is cleared at the customs, it is transported to the central warehouse of the NMCP.

The NMCP has public health technicians, who are trained to handle DDT. They place their request to the central office, from where –upon approval- DDT is transported to the locations. Unused stocks are either stored at the local warehouses or sent back to the central office. There are three warehouses in the country for DDT storage. Empty containers and personal protective gears are either burnt or buried at the sites, where spraying was undertaken.

The electricity supply, which amounted to about 2.5% of national energy consumption in 2003, is limited to the capital and other small cities and towns. Normal growth of supply and demand has

been disrupted by the war and still 2/3 of the population is without electricity. The average per capita consumption is estimated at 63kwh annually. The Eritrean Electrical Corporation (EEC) operates two systems namely, the Inter-connected System (ICS) and the Self Contained System. The ICS was developed between Asmara and Massawa and later extended to Keren, Mendeferat and Dekenhara. The high voltage grid provides electricity to the surrounding settlements as well. There are two major power stations attached to this network. One is in Asmara with medium speed generators of 5x5MWatts-combined capacity and one is in Massawa with slow speed generators of 4x22MWatts. Additional smaller power stations have a total capacity of 10MWatts. Self-contained system is used in remote locations, where smaller power stations are working independently supplying the cities and surrounding settlements. All generators are diesel powered.

Because of the fact that PCBs were widely applied in electro-energy equipment, devices for heat transmitting, hydraulic parts and in many other appliances, Eritrea presumably imported large quantities until the liberation war. PCBs have not been produced in the country. Electro-energetic transformers, capacitors and generators containing PCBs have not been assembled either. There have not been any surveys, or data collection on the use of PCBs in devices for transmitting heat, hydraulic parts or at any sectors that can possibly use PCBs.

There is no data on the number of imported transformers capacitors and generators, which might contain PCBs. There are no records on their use and maintenance. In most cases, they were not labelled and during maintenance, the possibility of cross-contaminations could not be ruled out.

Eritrea has significant mineral deposits. Construction minerals are mined open cast, while the metallic mines will be either open cast or underground mines. Currently exploration is undertaken. A polymetallic mine will be established in 2007 and will start its operation in 2008. The mine will be an open pit mine. There are several other projects for underground mines, but they have not yet been finalized, thus they have no relevance to POPs.

Before World War II there were twenty underground mines in the country. All of these mines have been closed and are abandoned. The Department of Mines under the Ministry of Mines and Energy confirms that all the electrical equipment have been removed from these locations. The equipment are of concern because they are most likely to contain PCBs. In underground mines the risk of fire had to be eliminated. PCBs were used for this purpose especially during the period, when these mines operated.

Detailed information on the stocks and contaminated sites

Stocks

In 2004, countrywide inventory resulted on more than 1000 tonnes of all types of pesticides. The survey included five Zobas out of the six and considered the liquid and powder preparations. This figure does not include empty containers and soil contaminations, which is of serious concern. After the inventory, inspectors located additional places where large quantities of DDT and other pesticides wastes were piled up. Thus, pesticides waste accumulates at an enormous pace, which calls for immediate regulatory interventions. DDT was found in private enterprises as well, which calls for a very thorough survey to identify and remove DDT from private owners in order to restrict its use for disease vector control in accordance with the World Health Organization and Annex B to the Stockholm Convention. In order to meet these obligations and to develop proper inventories and action plans the budget for these exercises were raised significantly.

According to NMCP obsolete DDT is not disposed of. Local offices either keep them in their warehouses, or ship them back to the central office, where they are stored separately. Over the years due to lack of disposal possibilities, significant stocks piled up, which was confirmed by the inventory of the Ministry of Agriculture as it was mentioned earlier.

The electrical transmission network is developed between Massawa and Asmara. The archaic distribution system is being upgraded by two World Bank projects. Rural Electrification in selected towns provided new distribution network to Massawa and other smaller cities. Asmara Distribution Rehabilitation will upgrade Asmara distribution network within three years. The decommissioned transformers and electrical equipment are stored in one location in Asmara. None of the equipment was checked for PCBs. According to EEC, approximately 600 pieces of transformers are in their possession. Since EEC is the sole provider of electricity in the country, they can identify those companies that own transformers, which have more than 400V, such as hotels, airports, factories, hospitals, etc. Therefore their involvement in the task teams is crucial. Due to the rapid rehabilitation programmes and the low number of transformers, the project foresees the development of the countrywide detailed inventory, based on chemical testing. This increased the budget for national consultancy and equipment.

Contaminated sites

According to the Ministry of Agriculture, obsolete pesticides have been buried in some locations. Due to the extensive use and persistence of DDT and other POPs pesticides, disperse environmental contaminations cannot be excluded, especially by knowing the current procedures for burning or burying empty DDT containers and protective gears at the sites of use. There was a factory in Asmara, which prepared DDT formulation. They received DDT in bulk and packed it into 1kg plastic bags. The factory ceased its DDT related operation in 2003. The unused stocks of DDT – approximately 500kg- have been sealed in a separate brick room in one of their warehouses. The factory is located in the middle of the residential area of the city.

The environment has probably been exposed by PCBs during the war. Electrical installations, such as power plants and distribution networks have been the primary military targets, which strongly necessitates compiling of the preliminary inventories. There are no data on the type and quantity of the dielectrics, which were filled in the damaged electrical equipment. It means each site, where contamination was likely to occur should be identified and tested.

Surveys or pilot testing projects for assessing the contaminated sites, contaminants, migration pathways and the possible recipients have been initiated. During the enabling activities task teams will develop the first contaminated sites cadastre and will prioritise the identified locations for further action.

Assessment of disposal opportunities

Waste management is the responsibility of the municipalities and relevant stakeholders, while the Department of Environment of the Ministry of Land, Water, Environment and Cadastre Office develops the draft legislations. Currently waste types such as hazardous, industrial or medical, are not classified by the legislation, therefore they are disposed of –in most cases- together with the municipal waste. Industrial facilities openly discharge their liquid wastes to the environment, or to the public drainage network. Medical waste is collected and is taken to the dumpsites, where it is burnt openly. Dumpsites are the most common places for waste disposal in Eritrea. Obsolete

pesticides and empty containers might have been buried at these sites, since hazardous landfill sites have not yet been developed.

Incineration

Incineration practices are not widely used for disposal of wastes. The most common way of reducing the quantities of wastes is to burn them openly at dumpsites. Lack of proper facilities and technologies for burning of wastes significantly contribute to the releases of Annex C POPs. The first modern medical waste incinerator was installed at the Central Hospital in Asmara. The Ministry of Health developed a waste management plan, which identifies the types and sizes of incinerators, which are required for sound waste management. The implementation of the plan is a matter of available financial resources.

Alternative technologies

Alternative waste disposal and recycling practices have not yet been introduced to Eritrea.

Detailed information on the releases to the environment

The industrial sector of Eritrea was originally established to meet the needs of the Italian colonialism and was similarly expanded during the British administration. Most present factories were established between 1901 and 1973. They were nationalised by the Dergue's administration in 1975. These industrial plants are old, inefficient and are heavily dependant on imported raw materials. Most of them such as the mines, mentioned earlier, or the Assab oil refinery, were closed. Annex C POPs release estimates have never been compiled. Preliminary assessments indicated that there are certain industries, which might release UPOPs into the environment. These potential sources are the textile industries, leather-making plants, which dye the fur; paper and pulp industry; cement production plants; asphalt mixing sites; manufacturers of PVC. Major sources of UPOPs releases are expected to be open burning of wastes, combustion of fuel wood in households, textile industries and road transport. With the increasing exploitation of the rich mineral deposits (gold, copper, silver, zinc) the mining industries will contribute to the UPOPs releases. This signifies the importance of the timely implementation of the BAT and BEP guidelines of the Convention.

Detailed information on the regulatory control

As per Article 9 of the Stockholm Convention, a focal point in the Department of Environment was designated for information exchange.

Framework laws concerning chemicals, pesticides and environment are missing. The National Environmental Management Plan for Eritrea was developed in 1995. It identified the major constrains of sustainable development and protection of the environment.

Little is known in Eritrea about the use and accumulation of chemicals, including POPs, in the environment. At present, there is no legislation or control on import, registration, transportation, storage, sale, use, or disposal of chemicals except for the issuance of import permits by the appropriate authorities. The government intends to develop appropriate legislation and

comprehensive management procedures, but generally lacks the human expertise in this field. Equally important would be the development and dissemination of detailed guidelines and manuals for the control of hazardous chemicals. By developing the National Chemical Profile and its action plans, the chemical management issues will be properly assessed and the initial steps made to overcome the current barriers. It will also develop the regulatory expertise and capacity to manage chemicals and chemicals related matters.

At present there is no sufficient national environmental legislation. There is a need to develop an umbrella environmental law to help minimise environmental degradation and to promote sustainable development. Steps have been made towards the development of the Environmental Proclamation, which is currently drafted. Environmental Impact Assessment (EIA) has been introduced; new industrial facilities are required to develop EIAs. However during the approval process –due to lack of legislations- the level of impacts on the environment elaborated in the EIAs cannot be compared to the requirements. The approval depends on the expertise and decision of the department.

Eritrea does not have special law on pesticides. In 1998, the draft Pesticides Proclamation was developed, but it was never promulgated. The revision of this draft is still pending. To alleviate the problem of managing pesticides a Regulatory Notice No. 3 of August 2004 was developed and would be promulgated in 2005 as it was elaborated earlier. The Ministry of Agriculture already uses this guideline for its work. Recently licensing of pesticide users and handlers was introduced, which aims to put a better control on pesticide management. During the licensing the infrastructure and the capacity for safe management of pesticides are audited. The Ministry does not have a laboratory, which favours the environment for import of banned chemicals by fake papers.

The Environmental Management and Regulatory Division of the Department of Environment is responsible for compliance and enforcement as well as for public awareness of environmental related matters. Under this division and in all of the municipalities, there are environmental inspectors. Their capacity to inspect facilities and enforce the legislation is weak. POPs have never been on their agenda. During the project, it is foreseen that training will be provided to the inspectors and they will also be involved in the task teams for developing inventories.

Monitoring of POPs chemicals

Monitoring of POPs and other industrial, as well as consumer chemicals is not done due to lack of capacity and resources. Neither the Department of Environment nor the Ministry of Agriculture have laboratories. They are mandated to use the facilities of other authorities:

- Water Resources Department has a small laboratory for soil and water samples, which provide basic analytical services. POPs have never been tested.

- Quality Control Laboratory of the Ministry of Fisheries tests water, sediment, plankton, phytoplankton, and fish samples for pollutants. POPs have never been tested.

- Central Laboratory of the Ministry of Health monitors food and drinking water for mainly bacteriological point of view. POPs have not been analysed in this laboratory.

These laboratories generally lack the proper equipment, reagents and methods. Due to lack of proper expertise, maintenance of the equipment is another problem, which encumbers the proper analytical work. Limit values for pollutants have not been developed and promulgated. Due to these shortcomings, the project foresees to seek the services of an accredited laboratory for sample analysis.

Human Health assessments

POPs-related exposures and impacts have not yet been measured in the country. Few cases of skin rushes, acnes and allergies were reported, but they have not been linked to POPs exposures. Health experts confirm that significant amount of pesticides poisoning happen annually, which justifies the need for a comprehensive chemicals management system as well as detailed and thorough public awareness campaigns on the use, storage, handling and disposal of such chemicals.