CENTRAL AFRICAN REPUBLIC

National Implementation Plan for the Stockholm Convention on Persistent Organic Pollutants (POPS)

Ministry of Water, Forests, Hunting and Fishing Charged with the Environment

Bangui, Central African Republic

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PREFACE

The acceleration of the scientific progress, the continual growth of the consumption of energy and primary material resources and the increasingly significant production of synthetic organic compounds render the question of chemical safety a major preoccupation of our time with regard to human health and environment in the context of sustainable development promotion.

Among the efforts undertaken by the international community for the protection of environmental health against detrimental effects of chemical products, the United Nations Conference on Environment and Development (UNCED), which was held in June 1992 in Rio de Janeiro (Brazil) marked a decisive turning point with the adoption of Chapter 19 of Agenda 21, dedicated to "environmentally sound management of toxic chemicals, including prevention of illegal international traffic in toxic and dangerous products".

The Stockholm Convention on Persistent Organic Pollutants (POPs), a legally binding treaty of global reach, is one of the important answers by the international community for the implementation of Agenda 21, to which the Central African Republic has associated itself by signing this Convention on 9 Mai 2002. The process of its ratification is ongoing.

POPs emissions have a severe impact on human health (cancers, congenital malformations, diabetes, reproductive disorder, mental debility, etc.) and environment. They constitute a poverty aggravating factor in developing countries and impede the governments' efforts for sustainable development.

Signing the Stockholm Convention has made the Central African Republic eligible for financial support of the Global Environment Facility, based on which the CAR applied for technical assistance from the United Nations Industrial Development Organization (UNIDO) for the establishment of its National Implementation Plan. This work process is executed in a participatory manner by the Ministry of Water, Forests, Hunting and Fishing, Charged with the Environment, the government's focal point according to Article 9 of the Convention.

Thus the Central African Republic has carried out a national evaluation of POPs in order to draft and apply a national plan for the implementation of the Stockholm Convention (NIP) according to its Article 7. This analysis revealed that with the exception of dioxins and furans, which are unintentionally produced POPs, the CAR has never intentionally produced POPs (pesticides or industrial products). However, POPs pesticides have been imported into the country for use in agriculture and public health. Likewise industrial POPs, such as Pyralene, have been imported for use in electrical equipment, some of which is still in service in the electric power production and distribution sector.

The will and determination of the Government to carry out necessary corrective measures for the promotion of sustainable development and to contribute to improving global environmental management are also expressed in the ratification of pertinent conventions, such as the Vienna Convention and the Montreal Protocol on Substances that Deplete the Ozone Layer, the Convention on Biological Diversity, the Convention to Combat Desertification, the United Nations Framework Convention on Climate Change, for the implementation of which synergies must be developed that follow the Strategic Approach to International Chemicals Management (SAICM). To that goal, the ratification of the Rotterdam and Basel Conventions is on the agenda.

The implementation of the Stockholm Convention is based on the substitution of POPs and the prevention of their emission into the environment, in accordance with the Convention's spirit, and it gives our country the opportunity to develop a national integrated policy for environmentally sound management of dangerous chemical substances and products.

This is the vision of the Government, which works on behalf of His Excellency, the President of the Republic. In his name and in the name of the Government I express our country's sentiments of gratitude

towards the Global Environment Facility (GEF) and our international development partners, in particular the United Nations Industrial Development Organization (UNIDO), the United Nations Environment Programme (UNEP), the United Nations Institute for Training and Research (UNITAR), the United Nations Development Programme (UNDP), and the Swiss Government for their multiple contributions and support in the work process for the National Implementation Plan for the Stockholm Convention and in the execution of pilot projects for the reinforcement of relevant capacities in our country.

I would like to nourish the hope to continue appreciating their presence at our side, as well as the presence of all, who also want to accompany us in the implementation of priority action plans, derived from the National Implementation Plan for the Stockholm Convention, which were validated by the different stakeholders at the National Workshop on 30 November and 2 December 2006, and which I formally endorse in the name of the Government.

The Minister of Water, Forests, Hunting and Fishing,
Charged with the Environment

Emmanuel BIZOT

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This National Implementation Plan (NIP) for the Stockholm Convention in the Central African Republic (CAR) was established under the aegis of the Ministry of Water, Forests, Hunting and Fishing, Charged with the Environment in the framework of Project UNIDO-GEF/CAF/02/013 "Enabling Activities" on Persistent Organic Pollutants (POPs).

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GLOSSARY

ACDA	Agence Centrafricaine de Développement Agricole
ADECAF	Agence de Développement de la Zone Caféière
ADIE	Association pour la Diffusion des Informations Environnementales
AFD	Agence Française de Développement
AME	Activité du Ministère de l'Environnement
ANDE	Agence Nationale de Développement de l'Elevage
APC	Air Pollution Control
APIC	Accords sur les droits de Propriété Intellectuelle qui touchent le Commerce
ARI	Acute Respiratory Illness
ASP	African Stockpile Programme
BAMAG	Bangui Magasin
BCEAO	Banque Centrale des États de l'Afrique de l'Ouest
BCR	Bureau Central de Recensement
BDPA	Bureau pour le Développement de la Production Agricole
BEAC	Banque des États de l'Afrique Centrale
CARBAP	Centre Africain de Recherches sur les Bananiers et Plantains
CAS-DFT	Compte d'Affectation Spéciale Développement Forestier et Touristique
CBD	Convention on Biological Diversity
CDB	Convention de la Diversité Biologique
CDS	Centre de Dépistage du HIV-Sida
CEEAC	Communauté Economique des états de l'Afrique Centrale Economic Community of Central African States
CEMAC	Communauté Economique et Monétaire de l'Afrique Centrale Economic and Monetary Community of Central Africa
CENTRAPALM	La Centrafricaine des Palmiers
CEPGL	Communauté Economique des Pays des Grands Lacs Economic Community of the Great Lakes Countries
CEPRB	Centre d'Exchange pour la Prévention des Risques Biotechnologiques
CETAC	Compagnie d'Exploitation de Tabac Centrafricaine
CFA	Communauté Financière Africaine
CFDT	Compagnie Française pour le Développement de Textiles

CIDCOM	Compagnie internationale d'édition, de presse et de communication
CIEN	Chemical Information Exchange Network
CNI	Comité de Négociation Intergouvernemental
COCECOT	Compagnie Centrafricaine de Coton
COMESA	Common Market of Eastern and Southern Africa
COP	Conference of the Parties
CRPR	Centre Régional Polyvalent de Recherche
CSLP	Cadre Stratégique de Lutte contre la Pauvreté
CTA	Chief Technical Advisor
DAGRIS	Développement de l'Agro-industrie du Sud
DDT	1,1,1-trichloro-2,2-bis(4-chlorophenyl)ethane; d(ichloro)d(iphenyl)t(richloroethane)
DGE	Directorate General of Environment
EA	Enabling Activity
ECOWAS	Economic Community of West African States
EIA	Environmental Impact Assessment
EMS	Environmental Management System
ENI	Ecole Normale d'Instituteurs
ENS	Ecole National Supérieure
ENSP	Ecole National Supérieure Polytechnique
EPA	Environmental Protection Agency
EU	European Union
EUR or €	Euro, Currency of the European Union
FAO	United Nations Food and Agricultural Organization
FEM	Fonds pour l'Environnement Mondial (GEF)
FMI	Fonds Monétaire International (IMF)
FRAUK	Fédération Régionale des Agriculteurs de la Ouaka
GEF	Global Environment Facility
GHS	Globally Harmonized System (of Classification and Labeling of Chemicals)
GINC	Global Information Network on Chemicals
GIR	Groupement d'Intérêts Ruraux
GIS	Geographical Information Systems
Gle	Générale

HCB	Hexachlorobenzene
HQ	Headquarters
HSSE	Health, Security, Safety and Environment
HUSACA	Huilerie et Savonnerie Centrafricaine
ICRA	Institut Centrafricain de la Recherche Agronomique
IEC	Information, Education and Communication
ILO	International Labour Organization
IMF	International Monetary Fund
INRAP	National Institute for Research and Pedagogic Action Institut National de Recherche et d'Action Pédagogique
IPCS	International Programme on Chemical Safety
IPEN	International POPs Elimination Network
ISDR	Institut Supérieur de Développement Rural
ISO	International Organization for Standardization
KR2	Kennedy Round 2
LAV	Lutte Anti Vectorielle
MAE	Ministry of Agriculture and Animal Husbandry Ministère de l'Agriculture et de l'Elevage
MARPOL	International Convention on the Prevention of Pollutants from Ships, London 1973
MEA	Multilateral Environmental Agreement
MEFCPE	Ministry of Water, Forests, Hunting and Fishing, Charged with the Environment Ministère des Eaux, Forets, Chasses et Pêches, Chargé de l'Environnement
NAAQS	National Ambient Air Quality Standard
NEPAD	New Partnership for Africa's Development
NGO	Non-governmental Organization
NIP	National Implementation Plan
NISC	National Implementation Supervising Commission
NPC	National Project Coordinator/POPs Enabling Activities
OIT	Organisation International du Travail (ILO)
OMS	Organisation Mondiale de la Santé (WHO)
ONG-ICA	NGO Intra-Conseil Agricole Organisation Non-gouvernementale Intra-Conseil Agricole

ONUDI	Organisation des Nations Unies pour le Développement Industriel (UNIDO)
ORCCPA	Office for Regulation of Commercialization and Control of Conditioning of Agricultural Products Office de Réglementation de la Commercialisation et du Contrôle du Conditionnement des Produits Agricoles
PAOP	Support Project for Farming Organizations Project d'Appui aux Organisations Paysannes
PAPAAV	Projet d'Appui à la Production Agricole et à l'Auto–promotion Villageoise
PCB	Polychlorinated biphenyl
PCDD	Polychlorinated dibenzo-p-dioxin
PCDF	Polychlorinated dibenzo furan
PDSV	Projet de Développement des Savanes Vivrières
PIC	Prior Informed Consent (Rotterdam Convention)
PK22	22 km from Bangui
PNC	POPs National (Steering) Committee
PNM or PNMO	Plan National de Mise en Œuvre
PNUE	Programme des Nations Unies pour l'environnement (UNEP)
POPs	Persistent Organic Pollutants
PRTR	Pollutant Release and Transfers Register
PTM	Phenyl tolyl methane
PVC	Polyvinyl chloride
PXE	Phenyl xylyl ethane
QMS	Quality Management System
QSP	Quick Start Program
SAICM	Strategic Approach to International Chemicals Management
SBB	Société de Bois de Bayanga
SESAM	Société d'exportation de la Sangha-MBaéré
SITC	Standard International Trade Classification of the United Nations
TCDD	Tetrachlorodibenzo-p-dioxin
TEF	Toxic Equivalency Factor
TEQ	Toxic Equivalent Quantity
TNC	Transnational Corporation
TOR	Terms of Reference

UN	United Nations
UNCED	United Nations Conference on Environment and Development
UNDP	United Nations Development Programme
UNEP	United Nation Environment Programme
UNIDO	United Nations Industrial Development Organization
UNITAR	United Nations Institute for Training and Research
UPM	UNIDO Project Manager
UPOP	Unintentionally Produced Persistent Organic Pollutant
UR	UNIDO Representative
USD or $	United States Dollar
WHO	World Health Organization
XAF	CFA Franc BEAC, Currency of Cameroon, CAR, Chad, Congo, Equatorial Guinea, Gabon

SUMMARY

1. Country profile

The Central African Republic (CAR) is a landlocked country of 623,000 km^2, located in the heart of the African continent between 2°13' and 11°01' north latitude and 14°25' and 27°27' east longitude. The CAR was a French colony (Ubangui-Shari) before it gained its independence in 1960.

The CAR borders on Cameroon in the west, on the Republic of the Congo and the Democratic Republic of the Congo in the south, on Sudan in the east and on Chad in the north. The country extends over a vast plateau of medium elevation (600 – 900 m), covered by grassland in the north, arboreous savanna in the center, and tropical rainforest in the southeast. The plateau rises in the northeast to the Adamoua highlands (Yadé massif with its highest peak Mont Ngaoui at 1,410 m) and in the northwest to the Bongo massif, culminating at Mont Toussoro at 1,330 m. The Central African peneplain is irrigated by numerous rivers: the Shari, the Logone and the Ubangi. The latter one forms the border with the Democratic Republic of the Congo.

The climate is tropical and equatorial in the south. Average temperatures in Bangui vary between July (21 – 29°C) and February (21 – 34°C). Tornados and floods occur frequently in the beginning of the rainy season, which lasts from June to October. The annual precipitations are higher in the Ubangi Valley (1,780 mm) than in the central part (1,300 mm) and the semiarid zones of the northeast and east (760 mm).

The Central African Republic has a population of 4 million. The principal ethnic groups are: the pygmies, the Baya-Mandjia and Banda groups, which represent more than half of the population, and the Zandés. The ethnic diversity is consolidated by the common language Sangho. This linguistic link has contributed to developing a feeling of national unity and brotherliness.

The Central African economy is based on the agro-pastoral sector, which employs about 80% of the active labor force and contributes to about 50% of gross domestic product (GDP); the secondary and tertiary sectors contribute 15% and 30% respectively.

2. The CAR and the Stockholm Convention

The Central African Republic has signed the Stockholm Convention on POPs on 9 May 2002. The procedure of ratification is currently in a very advance stage. This Convention covers at this time a dozen POPs grouped in three categories

- Pesticides: aldrin, chlordane, DDT, dieldrin, endrin, heptachlor, mirex, and toxaphene
- Industrial products: HCB and PCBs
- UPOPs: PCDDs and PCDFs

The Stockholm Convention on POPs was adopted on 22 May 2001 and entered into force on 17 May 2004. The first Conference of Parties (COP 1) was held in May 2005 in Uruguay, the second one in May 2006 in Switzerland and the third one in May 2007 in Senegal.

POPs resist natural degradation, dissolve in adipose tissue, accumulate in living organisms, posing a risk of disturbing their normal physiology and potentially causing various pathologies as severe as cancer, mental debility, congenital malformation, sterility, et al.

The objective of the Stockholm Convention is protecting human health and environment from detrimental effects of POPs by an approach of precaution. To that goal, it obligates the Parties to: prohibit and/or take the legal and administrative measures necessary to reduce or eliminate emissions from intentional production and use (Article 3); submit to the Secretariat of the Convention the required information for entries into the Register for specific exemptions (Article 4); take measures to reduce UPOPs emissions (Article 5); take appropriate measures for reducing/eliminating emissions from stockpiles or wastes, in order to make sure that these stocks or wastes consisting of substances listed in Annexes A, B or C are managed in a way that protects human health and environment. (Article 6); establish and implement the NIP (Article 7); help identify all substances that might possess the characteristics of POPs for the purpose of listing them in Annexes A, B or C (Article 8); exchange information with the Parties and the Secretariat of the Convention (Article 9); inform, raise awareness in and educate the general public (Article 10); conduct research, development and monitoring (Article 11); take every initiative to assure technical assistance (Article 12); provide national incentives and take other appropriate measures for securing additional funds, including from bilateral or multilateral cooperation and from the Convention (Articles 13 and 14); report to the Conference of Parties (Article 15); participate in the evaluation of the Convention's effectiveness (Article 16).

According to Article 7 of the Convention, the CAR has established its NIP thanks to the financial support of the GEF and the technical assistance of UNIDO. It followed the methodological approach in five steps, as recommended by the directives of the Convention.

1. Establishment of a coordinating mechanism and a process organization;

2. Establishment of POPs inventories and assessment of national infrastructure and capacity;

3. Priority assessment and objective setting;

4. Formulation of the NIP;

5. Endorsement of the NIP by stakeholders and Government and submission to the COP.

For the purpose of the NIP the national POPs inventories were assessed in 2004 in order to get a preliminary understanding of the POPs situation in the CAR. Basically, this analysis was partial and incomplete due to the size of the country and the limited means. It does not render an exact representation of the POPs situation in the country, but it shows:

- Actual presence of POPs (pesticides, PCBs, dioxins and furans) and their wastes, which were removed or spilled for different reasons by different actors, who did not know about the nature and detrimental health and environmental effects of these substances;
- Proven practices mismanagement caused by the weaknesses of knowledge and institutional and legal frameworks, as well as absence or insufficiency of necessary technical means;
- Existence of more or less badly with pesticides contaminated sites and of risk groups, including women, children and certain workers in the formal and informal sectors.

Based on the principal obligations of the Convention and the analysis of the national situation, the brainstorming of a multidisciplinary group allowed to identify 6 primary action plans and to prioritize them as shown in the table below.

In accordance with the NIP, the CAR wants to "reach progressively from now till 2025 environmentally sound management of POPs in order to protect human health and environment".

To begin with, the Central African Republic intends above all to establish an operational information exchange system according to Article 9 of the Convention, for communicating with the Secretariat and the other Parties on methods of fighting POPs (Articles 3, 4, 5, 6, 8, 10, 11) and participating in the international cooperation according to Articles 15 and 16.

For a country like the CAR with limited human and material resources, the implementation of the NIP remains a great challenge.

Priority	Action Plan
1	Awareness, education and information
2	Information exchange
3	UPOPs management (dioxins and furans: Annex C)
4	POPs pesticides management (Annexes A and B)
5	PCB management (Annex A)
6	Contaminated sites management (substances in Annexes A, B, C)

The Government, knowing that the reduction or elimination of POPs will not only allow to protect human health and environments against damaging effects, but also open for the country a real opportunity to set the foundation of a national policy for integrated management of dangerous chemical products in general, reaffirms by its Declaration of Intent its resolve to implement the NIP efficiently and effectively. To that goal, it will take efforts to mobilize accessible resources at the national level by all adequate means (tax deductions and reductions, etc.)

Besides, it will strive to access external resources from bilateral and multilateral cooperation and do its best to become eligible for technical and financial assistance in accordance with the principles of the Stockholm Convention and its Articles 12 and 13.

The strategy for NIP implementation is based on harmonizing the existing legal and regulatory framework and on assigning clear roles and responsibilities to the principal stakeholders. The implementation philosophy bases itself on information exchange, awareness raising, education and training of different actors in the public and private sectors and in organizations of the civil society in order to get their full and active participation. Thus, the reinforcement of capacities of actors, information, education and communication for changing the behavior of the general public, the lobbying of decision makers as well as the promotion of applied research, constitute the cornerstone of NIP implementation.

On the institutional level, the National Steering Committee of the Project on its enabling activities will be reformed and converted to a National Implementation Supervising Committee (NISC), led by the Ministry charged with the Environment, the focal point of the Convention. Moreover, an Executive Secretariat of the NISC will be created and charged with the preparation of the periodic

reports and other reports to the Convention, under the responsibility of a National Coordinator to be appointed by the Government. The National Coordinator will be charged with the day-to-day management of implementation activities, supported by a pool of national experts, and with the pre-validation of the reports of sectoral implementation activities, outsourced to national consultants or international experts. Finally, a mechanism of follow-up evaluation will be put in place, staffed internally (Central Inspection of the Ministry charged with the Environment) and externally (experts of the donors, the national stakeholders and others). The decentralized structures of the Ministry charged with the Environment will serve the NISC as links on the regional, prefectural and communal levels. The NISC members will be the focal points of their institution, organization or association.

The implementation schedule is projected for 20 years with objectively verifiable performance indicators and deadlines for the completion of the different action plans in order to adjust the subsequent revisions of the NIP to the circumstances.

The implementation budget is estimated at USD 22,000,000 and will essentially be provided by external donors and to a part from the state budget.

1. INTRODUCTION

This document is the National Plan of the Central African Republic for the Implementation of the Stockholm Convention on Persistent Organic Pollutants. Following the Interim guidance for developing the NIP, it consists of four principal parts:

- Introduction
- Base data on the CAR
- Strategies and action plans
- Annexes

After the end of World War II, synthetic chemical products including POPs and other persistent toxic substances have not ceased to enter the global environment. Their adverse effects persist in nature and pose grave threats to human health and environment. Recognizing this danger, the Governing Council of UNEP suggested in 1995 to initiate an international process for scientific evaluation of 12 POPs (aldrin, chlordane, DDT, dieldrin, dioxins, endrin, furans, hexachlorobenzene, heptachlor, mirex, PCBs and toxaphene). This common concern and concerted global action led to elaboration and adoption of a legally binding instrument of global reach on 22 May 2001 in Sweden, the Stockholm Convention. This convention entered into force in May 2004. The first three Conferences of Parties were held in May 2005 in Uruguay, in May 2006 in Switzerland and in May 2007 in Senegal.

By signing the Stockholm Convention on 9 May 2002 the CAR has committed itself to working on improving POPs management in the country in order to attenuate the adverse effects on health and environment. Like the other developing signatory states of the Stockholm Convention, the CAR is eligible for initial financial assistance from GEF for the establishment of its NIP, which constitutes an important step in the preparation for fulfilling its obligations towards the Convention.

This assistance has allowed carrying out Project UNIDO-GEF/CAF/02/013 “Enabling Activities”, of which the NIP is one principal outcome. Other major outcomes are raised stakeholder awareness; reinforcement of national capacities with regard to the POPs problem; and the Government’s commitment to rapid ratification of the Convention.

The present NIP, which has been object of extensive national cooperation, was elaborated according to the Convention’s directives and to the guidelines defined in an interim document of the CAR for Poverty Reduction. In this sense it constitutes a plea for improvement of knowledge and of reinforcement of national capacities with respect to the obligations of the Convention for POPs management and other implementation activities.

1.1. Object and Structure of the NIP

The NIP is the strategy document for the implementation of the POPs Convention. It was elaborated in application of Article 7 of the Convention and with the general objective to improve POPs management in the country in order to reduce/eliminate the detrimental effect of POPs on human health and environment.

Its specific objectives are:

i. Improving the knowledge on POPs to be able to reduce/eliminate their local sources and emission quantities;

ii. Having a national legislation explicitly adapted to POPs and enforcing it;

iii. Reinforcing the capacities of the principal stakeholders in environmentally sound POPs management and coordinating their activities;

iv. Ensuring information exchange on implementation measures and participation in the effectiveness evaluation of the Convention by international cooperation.

The present NIP addresses in conformance with the interim guidelines of the Convention the following issues:

- National overview
- Institutional, political and regulatory framework
- State of knowledge on POPs
- Declaration of intent
- Implementation strategy
- Strategies and action plans
- Proposals for development and reinforcement of capacities
- Timetable for action plans with performance indicators and indication of required financial resources
- Annexes

1.2. Major Objectives and Obligations of the POPs Convention

The Stockholm Convention was adopted on 22 May 2001. It entered into force on 17 May 2004. COP 1 was held in May 2005 in Uruguay, COP 2 in May 2006 in Switzerland and COP 3 in May 2007 in Senegal. The objective of the Convention is to protect human health and environment from adverse effects of POPs, taking into account the precautionary principle of the Rio Declaration on Environment and Development. To that goal, it mentions certain essential dispositions, according to which the Parties must:

- Designate a focal point for information exchange (Article 9);
- Prohibit and/or take legal and administrative measures for eliminating the production and use of chemical substances listed in Annex A (aldrin, chlordane, dieldrin, endrin, heptachlor, hexachlorobenzene, mirex, toxaphene et PCBs, Article 3.1 a);
- Limit production and use of chemical substances listed in Annex B (DDT, Article 3.1 b);

- Ensure that chemical substances listed in Annex A or B are only imported for environmentally sound disposal purposes or authorized use according to one of the other annexes (Article 3.2 a)

- Ensure that chemical substances listed in Annex A or B are only exported for environmentally sound disposal purposes or to a Party which is authorized to use such substance according to one of the other annexes, or to a to a state not Party to this Convention which has provided an annual certification to the exporting Party according to Article 3.2 b

- Take measures according to regulatory and assessment schemes for new pesticides or new industrial chemicals with the aim of preventing the production and use of new pesticides or new industrial chemicals which, taking into consideration the criteria in paragraph 1 of Annex D, exhibit the characteristics of persistent organic pollutants (Articles 3.3 and 3.4)

- Register for specific exemptions to Annexes A or B and, if necessary, and submit a report justifying its continuing need for that exemption prior to review of an entry in the Register (Article 4.3 and 4.6);

- Elaborate and implement a national, or, where appropriate, a sub-regional or regional action plan for the reduction of the total quantity of emissions of chemical products listed in Annex C (PCDD, PCDF, HCB, PCB) from anthropogenic sources within two years after becoming a Party to the Convention (Article 5);

- Manage stocks and wastes in a way that protects human health and environment by elaborating appropriate strategies for their identification, and handle, collect, transport and eliminate them by environmentally sound methods (Article 6.1);

- Prohibit disposal operations for stock and wastes of POPs that would lead to recovery, recycling, regeneration, direct reuse or alternative uses (Article 6.1 d iii);

- Regulate transboundary movements of stocks and wastes of POPs according to pertinent international rules, standards and directives (Article 6.1 d iv);

- Transmit an implementation plan to the Conference of the Parties within two years of the date on which this Convention enters into force for it; and review and update, as appropriate, its implementation plan on a periodic basis (Article 7.1);

- May submit a proposal to the Secretariat for listing a chemical in Annexes A, B and/or C (Article 8);

- Exchange information with other Parties on reduction or elimination of production, use and emissions of POPs and on substitutes for POPs (Article 9);

- Ensure that the public has access to public information on POPs, including information concerning health and safety of persons and environment (Article 10.2);

- Take appropriate activities for research/development, monitoring and cooperation pertaining to POPs and, if relevant, to their alternatives and to candidate POPs (Article 11);

- As a developed country Party, render technical assistance to developing country and transition country Parties (Articles 12.1 and 12.2);
- Provide financial support and incentives for national activities aimed at achieving the objectives of the Convention (Article 13.1);
- As a developed country Party, provide financial support to developing country and transition country Parties to enable them to cover the full agreed incremental costs for measures to fulfill their obligations towards the Convention (Article 13.2);
- Submit periodically to the Secretariat the reports on implementation of the Convention, including statistical data on total quantities of chemical substances listed in Annexes A and B produced, imported and exported (Articles 15.1 and 15.2).

1.3. Roadmap for the NIP Establishment

The preparation of the NIP, which is based on the interim guidelines of the Convention, followed these steps:

Step 1: Installing a mechanism for coordination and process organization:

- Designating a focal point according to Article 9;
- Establishing a project coordination team;
- Nominating a project steering committee composed of representatives of the public and private sectors and of organizations of the civil society;
- Holding an inception workshop for the project UNIDO-GEF/CAF/02/013 “Enabling Activities” on 30 January 2004;

Step 2: Initial national POPs inventories and evaluation of the legal and institutional framework:

- POPs inventory training workshop for Steering Committee members and other actors (Bangui, 16 – 17 September 2004);
- Validation workshop for preliminary POPs inventories (26 – 28 January 2005);

Step 3: Identification of national objectives and priorities:

- Validation workshop for objectives and priorities (6 – 7 December 2005);

Step 4: Training for NIP elaboration:

- NIP drafting workshop;
- Preparation of action plans in July 2006;

Step 5: Validation and endorsement:

- Preparation of the first draft NIP and distribution to the stakeholders and to the NIP agency (September – October 2006);
- Independent international review (November – December 2006);
- NIP validation workshop (30 November – 2 December 2006);

The validated NIP is the result of a long participatory process, which involved the stakeholders, consisting of public and private institutions, NGOs and grassroots organizations concerned with POPs management. In accordance with the interim guidelines for NIP elaboration, it is structured in three essential parts: Introduction; Country Reference; and Strategies and Action Plans.

1.4. Mechanism for Stakeholder Involvement

Since the elaboration of the NIP ought to be a really participatory national process, the following mechanisms for coordination and information exchange were developed:

- Periodical National Project Steering Committee meetings
- Periodical meetings of the Project Coordination Team
- Broad participation at the national inventory and NIP workshops
- Organization of special POPs information and awareness days for stakeholders
- Diversity of participants of training sessions for NIP elaboration
- Press conferences
- Close implication of the media in the NIP elaboration

1.5. Summary of the POPs Situation

1.5.1 National context

Institutional level

The national institutional framework for chemical products management consists of several ministries, agencies, governmental and paragovernmental institutions, which are more or less involved at the different stages of the product life cycle. The Ministry charged with the Environment is the structure, which is charged with implementing government policy in the environmental area. In this capacity it has coordinated the process of elaboration and adoption of the NIP through the different organs of the Directorate of Environment. The other ministries and institutions concerned with POPs management and involved in the process are:

- Ministry of Agriculture and Animal Husbandry: promotion and management of chemical products used as fertilizers for the cultures, as suppressants of microorganisms threatening plants and as animal feed additives;

- Ministry of Energy, Mines and Hydrology: promotion of technologies for mining and energy resources with regard to reducing PCB pollution and water treatment;
- Ministry of National Defense: use of military ammunition and explosives;
- Ministry of Health: use of chemical products as reagents in laboratories and other hospital installations (morgues, operation theaters, etc.) as well as for fighting the great endemic diseases (impregnation of mosquito nets, large scale pesticide spraying);
- Ministry of Commerce: regulation of importation and distribution of chemical products;
- Ministry of Transport: regulation and control of transport conditions by land, water and air of such products from their production site to their destination;
- Ministry of the Interior and of Land Management: regulation of waste management of chemical products by the police and communal services;
- Ministry of Foreign Affairs: negotiation and monitoring of the implementation of different conventions pertinent to chemical products, in particular the Stockholm Convention;
- Parliament: ratification of conventions, adoption of national laws for their application;
- University: researching the impact of chemical products on human health and environment, cognizance of the characteristics of POPs present in the CAR and of methods for their proper reduction or elimination; development of safer alternatives for POPs.

Management and risk reduction of chemical products used by industry and groups of public interest

The management and risk reduction activities for chemical products used by industry and groups of public interest are still marginal. Awareness is still low and the budgets are insufficient, which sets limits for the initiatives of most NGOs.

Since chemical products management is very demanding for the governmental partners, certain coordination mechanisms have been installed in order to ensure broad participation in decision making and complimentarity of actions of all concerned. Other mechanisms ought to be institutionalized for other chemical products, in particular for industrial chemical products, chemical consumer products and pesticides used in the health sector.

Finally, the different national agencies charged with chemical product management should take advantage of modern communication techniques to facilitate the exchange of information.

Chemical products management also requires that relevant information is collected and shared between the different partners. The present situation regarding access to data and their utilization shows that:

- Important gaps remain in the information and publication base. Much data is neither collected nor compiled, in particular data on industrial accidents; transport accidents; industrial occupational health; poisoning statistics; inventory of emission and transfer of polluting matter; hazardous waste; registries of toxic chemicals.

- Databases that exist in the country at the customs services are digitized and can be accessed after authorization by the responsible agents in these services.

- Nevertheless it should be pointed out that these databases were conceived before the recent national preoccupation with chemical products management. Therefore they do not always hold the precise information sought. They should be reviewed in order to include information on chemical products management in general and POPs management in particular.

- Access to data and international documentation is insufficient, because not all parties concerned can access the Internet.

- Additional information on specific chemical products used in the country should be obtained by surveys of the different users. These surveys could turn out occasionally to be difficult to conduct, because the users may not have statistical data on these products.

Legislative and regulatory level

Table 1: Review of existent legislative texts on toxic chemicals

Text	Object	Date
Decree no. 59/81	Regulation for sale and dispersion of toxic chemical substances in agriculture	4 February 1959
Law no. 62/350	Organization of plant protection in the CAR	4 January 1962
Edict no. 136	Phytosanitary control by agents of the Ministry of Agriculture	7 July 1970

Source: Phytosanitary service of the Ministry of Agriculture

The legal and regulatory framework for chemical products management in the CAR can be described as follows:

- The Central African legislation on POPs has weaknesses. Even though several texts exist and regulate sale and dispersion of toxic chemical substances in agriculture, organization of plant protection and phytosanitary control by agents of the Ministry of Agriculture, the CAR should adjust to new international standards.

- The Environmental Code has been drafted and is waiting for its adoption by the Parliament.

- While the adoption of the Environmental Code is expected, gaps and insufficiencies persist in the legislation concerning the different stages of the life cycle of chemical products after their importation and/or production. In particular, there is great need for laws that reduce the risks associated with handling hazardous chemicals, both for professional users and consumers. Moreover, treatment and disposal of chemical products, obsolete pesticides and chemical waste are not regulated. Besides, the legislation on controlling accidents and accidental spillages is seen as inadequate. Finally, no functional system exists for the classification of dangerous chemical products. This could be resolved

by adopting and implementing the global system for harmonization, classification and labeling chemical products.

Infrastructure

The existing technical infrastructure needs to be reinforced for the management requirements of products such as POPs.

The laboratory infrastructure is concentrated in the capital Bangui and is not capable to carry out analyses of chemical products and waste because of lacking appropriate functioning equipment.

The data processing infrastructure is dispersed in several ministerial departments but not interconnected.

Human and financial resources

Chemical products management requires human and financial resources. The assessment of human and financial resources in this area shows:

- The ministries which should play important roles but do not have sufficient human resources are the Ministries in charge of: Environment, Health, Commerce and Industry.
- POPs management related activities are not yet listed in the Government budget.
- The capacities of staff and agents of different ministries and institutions, which are or may be involved in chemical products management, should be reinforced. The areas of training are particularly: environmental law; waste management; phytosanitary legislation; POPs management and environmental impact studies, etc.
- The lack of legal experts in the field of chemical products seems to be alike in all ministries and institutions.
- A partnership between the CAR and international institutions, which provide expertise and incremental financial means, should be developed in order to mobilize the technical and human resources for sound chemical products management.

Technical and professional training systems, which can provide the required expertise for applying government programs and policies with regard to chemical products management, exist. Their content is, however, rather general and their adjustment is necessary. Aspects pertaining to POPs should be included in the different training curricula of the agricultural and zootechnical branches, human medicine and technical scientific areas of training for the chemical industry.

Education and public awareness

Although education and raising the awareness of the public is one of the strategies adopted by the Government for limiting the damage to health and environment, caused by use of toxic and hazardous chemical products, the Government has not yet elaborated a national program to this goal. Potential public and private partners for the implementation of such a program exist locally. The National Institute for Environment and Nature Conservation could coordinate the program.

1.5.2 General information on chemical products

1.5.2.1 General situation

The Central African Republic is much more an importer than a producer of chemical products.

Manufacturing of chemical products is limited to a few, such as: paints, insecticides, oxygen, polyethylene film, soap, foam, PVC tubes, pharmaceutical products, cardboard packaging and polypropylene bags.

Importation of chemical products includes: products used in the local industries; agricultural pesticides; pesticides for the health sector; fertilizers; petroleum products; products for the energy and construction sectors; chemical consumer products.

Petroleum products, fertilizers and pesticides are the main products in terms of quantity and value.

The use of these products generates much waste (packing material, industrial solid waste, industrial wastewater, obsolete products, especially pesticides and fertilizers), which the country cannot treat in an environmentally sound way, because of lacking infrastructure and appropriate means. Thus, 5 sites have been identified as potentially contaminated by agricultural pesticides and 8 sites as potentially contaminated by PCBs or PCB containing oil. The pesticide stockpiles are so badly kept that they can equally be classified as contaminated sites.

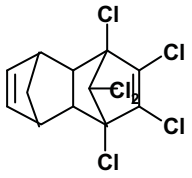
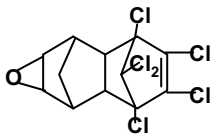
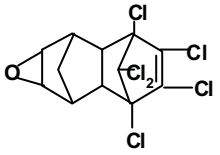
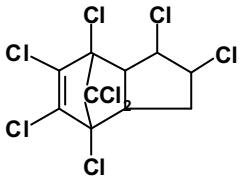
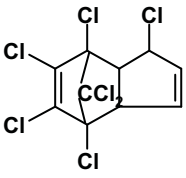
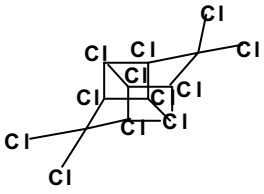
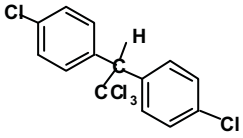
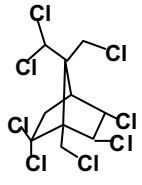
The priority problems in regard to chemical products management are more troubling for the city of Bangui, where virtually all chemical enterprises are concentrated. These problems are not well understood as far as the pollution of the water table and water currents, the occupational health of persons in permanent contact with industrial chemical and agricultural products, the air pollution, the contamination of soil, food, fauna and flora, and health impacts are concerned.

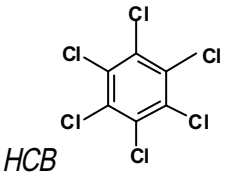
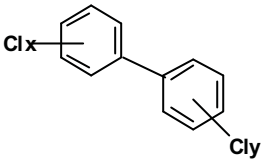
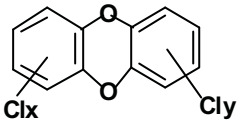
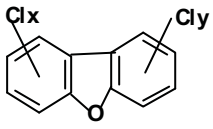
Big data gaps persist regarding air pollution, pesticide residues in food, occupational health in agriculture and industry, public health, residue concentration, etc.

Therefore, additional information is required on: air pollution, especially in Bangui; the concentration of pesticides and veterinary products in soil and food, including fish in the Ubangi River; the degree of air pollution in the chemical industry; analysis data for water bodies, rivers and drinking water sources; occupational health monitoring data from persons in permanent contact with chemical, industrial and agricultural products; POPs contaminated sites. The acquisition of this data requires technical capacities and financial resources, which the CAR can only mobilize through bilateral, regional and multilateral cooperation.

1.5.2.2 POPs situation

Table 2: POPs profiles

Structural Formula	General Information
 *Aldrin*	**CAS Number**: 309-00-2 **Molecular Formula:** $C_{12}H_8Cl_6$ **Half-life Time** < 0,4 days (air); 1,1-3,4 years (water and soil) **Toxicity:** oral LD_{50}: 38-67 mg/kg; cutaneous LD_{50}: 98 mg/kg) **Use**: ectoparasiticide , termiticide
 *Dieldrin*	**CAS Number**: 60-57-1 **Molecular Formula** $C_{12}H_8Cl_6O$ **Half-life Time** 1,1-4,2 days (air); 1,1-3,4 years (water and soil) **Toxicity:** oral LD_{50}: 37-87 mg/kg; cutaneous LD_{50}: 60-90 mg/kg) **Use**: insecticide, termiticide
 *Endrin*	**CAS Number**: 72-20-8 **Molecular Formula** $C_{12}H_8Cl_6O$ **Half-life Time** 1,3-4,2 days (air); 1,1-3,4 years (water and soil) **Toxicity:** oral LD_{50}: 283 mg/kg; cutaneous LD_{50}: 580 mg/kg) (rabbit) **Use**: insecticide; termiticide.
 *Chlordane*	**CAS Number**: 57-740-9 **Molecular Formula** $C_{10}H_6Cl_8$ **Half-life Time** < 0,4 days (air); 1,1-3,4 years (water and soil) **Toxicity:** oral LD_{50}: 38-67 mg/kg; cutaneous LD_{50}: 98 mg/kg) **Use**: ectoparasiticide
 *Heptachlor*	**CAS Number**: 76 -44-8 **Molecular Formula** $C_{10}H_5Cl_7$ **Half-life Time**: 1,3-4,2 days (air); 0,03-1,11 years (water); 0,11-0,34 (soil) **Toxicity:** oral LD_{50}: 147-220 mg/kg; cutaneous LD_{50}: >2000 mg/kg (rat); 119-320 mg/kg (rabbit) **Use**: termiticide; insecticide, pesticide.
 *Mirex*	**CAS Number**: 2385 -85-5 **Molecular Formula** $C_{10}Cl_{12}$ **Half-life Time** 4,2-12,5 days (air); 0,34-1,14 years (water); > 3,4 (soil) **Toxicity:** oral LD_{50}: 306 mg/kg; cutaneous LD_{50}: 800 mg/kg (rabbit) **Use**: insecticide, pesticide.
 *DDT*	**CAS Number**: 50 -29-3 **Molecular Formula** $C_{14}H_9Cl_5$ **Half-life Time** 4,2-12,5 days (air); 0, 34-1,14 years (water); 1,1-3,4 (soil) **Toxicity:** oral LD_{50}: 87mg/kg; cutaneous LD_{50}: 1,931 mg/kg (rabbit) **Use**: insecticide.
 *Toxaphene*	**CAS Number**: 8001 -35-2 **Molecular Formula** $C_{10}H_{10}Cl_8$ **Half-life Time** 417-1250 days (air); > 3,4 years (water and soil) **Toxicity:** oral LD_{50}: 40 mg/kg); cutaneous 600 mg/kg (rabbit) **Use**: insecticide

Structural Formula	General Information
 *HCB*	**CAS Number**: 118 -74-1 **Molecular Formula** C_6Cl_6 **Half-life Time** 4,2 days (air); 5,7 years (water); 1,14 years (soil) **Toxicity:** oral LD_{50}: 3,500 mg/kg **Use**: fungicide
 *PCBs*	**CAS Number**: 11097 -69-1 **Molecular Formula** $C_{12}H_xCl_{10-x}$ **Half-life Time** 4,2-12,5 days (air); 0, 34-1,14 years (water); 1,1-3,(soil) **Toxicity:** oral LD_{50}: 87mg/kg; cutaneous LD_{50}: 1,010mg/kg (rabbit) **Use**: dielectric. fluid
 *PCDDs*	**CAS Number**: 1746 -01-6 **Molecular Formula** $C_{12}H_xCl_{8-x}O_2$ **Half-life Time** 4,2-12,5 days (air)); 0, 11-0,34 years (water); 0,34-1,1 (soil) **Toxicity:** oral LD_{50}: 22-165 mg/kg (rat) **Sources**: Combustion processes, et al. **Application:** none
 *PCDF s*	**CAS Number**: 51207 -31-9 **Molecular Formula** $C_{12}H_xCl_{8-x}O$ **Half-life Time** 4,2-12,5 days (air) (PCDDs); 0, 11-0,34 years dans l'eau; 0,34-1,1 dans le sol) **Toxicity:** oral LD_{50}: 22-165 mg/kg (rat) **Sources:** Combustion processes, et al. **Application:** none

Very little information is available on POPs in the CAR, other than the incomplete and fragmented initial national POPs inventories, which were established in 2004 for the preparation of the NIP.

Today these initial inventories allow to exclude the official use of any POPs pesticides (Annexes A and B) with the exception of aldrin, which is the active component of Xylogyl, an imported wood preservative. However, it remains uncertain to what extent POPs pesticides are used in the informal sector (distribution, use, recycling, etc.) Moreover, the existence of obsolete pesticides stocks and their different wastes, probably contaminated with POPs, has been proven and constitutes major concern. The existence of these contaminated sites poses a major threat. They could not be appropriately identified and will have to be exhaustively inventoried for securing or rehabilitating them. It needs to be stressed that some serve as shelters or for professional use today. The PCBs, industrial products listed in Annex A, have been only partially inventoried and only a part of the electrical equipment, which potentially contains them (transformers and capacitors) has been identified. The national sources of UPOPs emissions (dioxins and furans, Article 5 and Annex C) consist in the CAR mainly of uncontrolled combustion processes, transport activities, power generation and domestic cooking and heating.

As for chemical products in general, the stakeholder's attitude towards POPs is characterized by low awareness and ludicrous intervention capacity compared to the stakes.

The POPs situation in the CAR is described in more detail in section 2.3 of this document.

The NIP is an indispensable link to the national plan for finding appropriate solutions for the problems of the CAR in sound management of chemical products and hazardous waste including POPs.

Its elaboration has been a fundamentally participatory process with strong implication of all partners and intensive information and awareness raising of the population and all stakeholders. It is integrated in the national context with a poorly functioning institutional framework and a legal and regulatory framework full of gaps. Besides, the technical infrastructure, as well as the human and financial resources, need to be reinforced in order to respond to the exigencies of sound chemical products and POPs management.

In accordance with the national priorities of poverty reduction, the NIP offers for its implementation the opportunity to the country to formulate sustainable development projects comprising a chemical security component. Essentially aimed at the improvement of socio-economic conditions, such projects will allow the country to fulfill its obligations not only towards the Stockholm Convention, but also towards other conventions in synergy with the former one. The following chapter describes the national context for the NIP implementation in terms of reference data of the CAR.

2. BASIC DATA ON THE CENTRAL AFRICAN REPUBLIC

2.1. General Context

2.1.1 Geography and demography

As its name suggests, the Central African Republic, a landlocked country with a surface of 623,000 km^2 and a population of about 4 million, is located in the heart of the African continent between 2°13' and 11°01' north latitude and 14°25' and 27°27' east longitude.

The CAR borders on Cameroon in the west, the Republic of the Congo and the Democratic Republic of the Congo in the south, Sudan in the east and Chad in the north. The country extends over a vast plateau of medium elevation (600 – 900 m), covered by grassland in the north, arboreous savanna in the center, and tropical rainforest in the southeast. The plateau rises in the northeast to the Adamoua highlands (Yadé massif with its highest peak Mont Ngaoui at 1,410 m) and in the northwest to the Bongo massif, culminating at Mont Toussoro at 1,330 m. The Central African peneplain is irrigated by numerous rivers: the Shari, the Logone and the Ubangi. The latter one forms the border with the Democratic Republic of the Congo.

The closest access points to the sea are more than 1,500 km from Bangui: Douala in Cameroon (the Trans-Cameroon route) and Pointe Noire in the Republic of the Congo (the Transequatorial route) down the Ubangi River till Brazzaville and then by railroad till Pointe Noire. These two ports on the Atlantic Ocean ensure the transit of the larger part of merchandise exchange of the CAR.

The climate is tropical and equatorial in the south. Average temperatures in Bangui vary between July (21 – 29°C) and February (21 – 34°C). Tornados and floods occur frequently in the beginning of the rainy season, which lasts from June to October. The annual precipitations are higher in the

Ubangi Valley (1,780 mm) than in the central part (1,300 mm) and the semiarid zones of the northeast and east (760 mm).

The CAR has 3,895,000 inhabitants or a density of 6 inhabitants per km^2. Bangui, the commercial and political capital, has about 623,000 inhabitants or 16% of the country's total population. The population of the CAR is unequally distributed and is rural in its majority. It consists of 49% of persons younger than 18 years. Only 3% are over 60 years old. The gender distribution is 49% males and 51% females.

The principal ethnic groups are the pygmies, who still live in the Central African forest in the Lobaye region, the Gbaya-Manja and Banda groups, who represent more than half of the Central African population, and the Zande, who are semi-nomad farmers and live in the northeast of the CAR, the south of Sudan and the Democratic Republic of the Congo.

The ethnic diversity is consolidated by the common Sangho language, which is the national idiom. This linguistic link has contributed to developing a feeling of national unity and brotherliness.

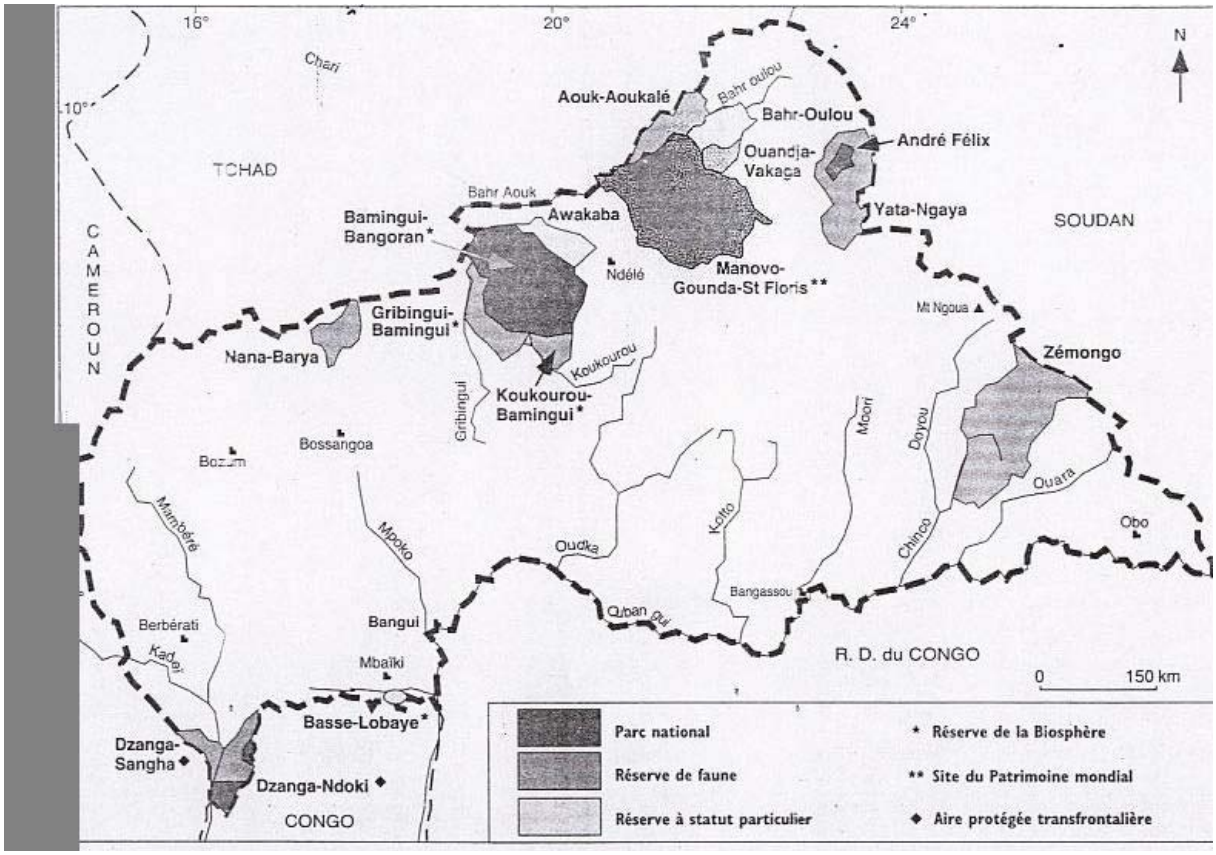


Figure 1: Map of national parks, reservations and protected areas of the CAR

2.1.2 Political, economic and social context

2.1.2.1 Political framework

The Central African Republic has experienced several political shake-ups after gaining its independence in 1960. After the death of its pre-independence Prime Minister Barthélemy BOGANDA in 1959 six political regimes followed, three of which came to power by force and were later

legitimized by elections. The severest crises took place between 1996 and 2003. This period, characterized by different political and military showdowns, has weakened the economic base and created a social rift, from which the country recovers with difficulty.

The call for more democracy in Africa of the 1960s was followed in the CAR by multiparty elections in 1993, which put a democratically elected civilian president into power. The elections were accepted by all parties and promised new political and economic prospects. Unfortunately, the failure of the state to meet its obligations (the cost of sovereignty) triggered a spiraling series of political and military crises starting in 1996 with a military coup. This succession of crises in conjunction with political instability and lack of security resulted in a brutal cessation of the constitutional order on 15 March 2003 in an army rebellion led by General Bozize. A new constitution was promulgated in December 2004 and presidential and parliamentary elections were held in March 2005. Bozize was legitimized by winning these elections against several other candidates. Since then efforts have been taken to reestablish security in the entire country, and significant economic progress has been achieved with the support of external partners.

The CAR is a member of several international and regional organizations. It is a stakeholder in regional and international initiatives for environmental management. This includes the Conference of Central African Moist Forest Ecosystems (CEFDHAC), the Central Africa Forests Commission (COMIFAC), the Organization for the Conservation of Wildlife in Africa (OCFSA), the Network of Protected Areas in Central Africa (RAPAC), the International Organization of Tropical Wood (OIBT), the Regional Program for Environmental Information Management (PRIE), the Commission of the Basin of Lake Chad (CBLT), the Central African Regional Program (CARP), the African Timber Organization (ATO/OAB), and the Global Environment Facility. Besides, the CAR is member of politico-economic groups: the Economic and Monetary Community of Central Africa (CEMAC), the Community of Sahel-Saharan States (CEN-SAD), the Economic Community of Central African States (ECCAS/CEEAC), the Common Market of Eastern and Southern Africa (COMESA), etc.

The CAR in a Nutshell

Geography	
Surface	622,984 km^2 (20,000 km^2 arable land, 35,000 km^2 steppe, 540,000 km^2 savanna, 52,200 km^2 dense moist forest, 6,335 km^2 classified forest)
Relief	vast plateau with elevations between 500 and 900 m; highest points: Mont Ngaoui (1,410 m) in the Yadé massif, Mont Toussoro in the Bongo massif
Climate and vegetation	average annual temperature 26° C precipitation between 226 mm in July and 5 mm in December
Politics	
Proclamation of the CAR	1 December 1958
Independence	13 August 1960
President of the CAR	François BOZIZE
Economy	
GDP Growth in 2005	2.5%
Activity rate	51.9%
Unemployment rate	7.6%
Main export products	cotton, coffee, timber, tobacco, gold and diamonds
Demography	
Population	3,895,139 (RGPG 2003)
Density	6 inhabitants per km^2
Largest cities	Bossangoa, Bambari, Berbérati, Bouar, Bangassou
Capital	Bangui
Life expectancy	42.7 years
Maternal mortality rate	1,355 in 100,000
Infant mortality rate	220°/oo
Illiteracy rate	57.3%
Primary schooling rate	40.7%
Households with drinking water access	47%
Households with proper sanitation	13.3%
Environment	
Principal MEAs signed or ratified	Vienna Convention (1993); Biodiversity Convention (1995); UN Framework Convention on Climate Change (1995); Hayes Accord (1995); Convention to Combat Desertification (1996); Cartagena Protocol (2000); Stockholm Convention (2002)
Protected areas	2 integral reserves, 4 national parks, 1 presidential park, 1 special reserve for multiple use, 2 biosphere reserves, 1 world patrimony site and 7 fauna reserves
Deforestation rate	0.4%
Biodiversity	3,602 vascular plant species, 209 mammal species, 668 bird species, 29 butterfly species, and 455 fish species grouped in 52 families

Figure 2: The CAR in a nutshell

Source: RGPH 2003 ; Centrafrique : le pays et son potentiel, les Guides Eco finance Groupe Jeune Afrique

2.1.2.2 Administrative framework

The CAR has seven administrative regions. The seventh region is the capital Bangui. The country is subdivided into 16 prefectures, 72 sub-prefectures, 175 communes and 8,861 villages and quarters. The territorial collectives of the CAR are the regions and the communes (Law no. 96.013 of 13 January 1996 on the creation of regions and defining their territorial limits). The seven regions comprise:

- Region no. 1: Prefectures Ombella M'poko and Lobaye (main city Bimbo) ;
- Region no. 2: Prefectures Nana Mambéré and Sangha Mbaéré (main city Berbérati) ;
- Region no.: Prefectures Ouham and Ouham Mpendé (main city Bossangoa) ;
- Region no. 4: Prefectures Kémo, Nana-Gribizi and Ouaka (main city Sibut) ;
- Region no. 5: Prefectures Haute-kotto and Mbomou (main city Bria) ;
- Region no. 6: Prefectures Basse-kotto ; Mbomou and Haut Mbomou (main city Bangassou) ;
- Region no. 7: Bangui

A commune consists of a certain number of villages or districts. From a political point of view, the regions that consist of a certain number of prefectures are not yet functional to the intended degree to be governed by Governors. They should benefit from a political and financial autonomy, as defined in the legal texts on implementation of the regionalization policy.

2.1.2.3 Economic and social framework

As for economic potential, the CAR has luscious vegetation apt for agricultural development. Under ground it has important mineral resources, which have not yet been completely assessed. Among those already known, only diamonds and gold are being artisanally exploited, but the fraud that goes with their exploitation deprives the country of substantial financial resources, which are needed for its economy and population.

The macroeconomic picture is characterized by a regression of per capita GDP since 1965, shrinking from about USD 430 in 1965 to less than USD 250 in 2006, an unsustainable level of public debt and continual deterioration of exchange terms.

On the social level, the standard of living of the population is degrading. The life expectancy is 42.7 years according to the last general census in 2003. It is certain that the poverty curve is far from inversing its rise. Poverty has increased from 62% in 1990 to 70% in 2003. It should be mentioned that in the urban environment the richest 10% dispose of 75% of total revenues.

The net primary schooling rate, which rose regularly from 46% in 1990 to 63% in 1996 fell to 40% in 2003. The CAR remains one of the countries with the highest mortality rate of children under five years: it rose from 157 °/₀₀ in 1995 to 194 °/₀₀ in 2000 and to 220 °/₀₀ in 2003.

The maternal mortality rate rose from 948 of 100,000 life births in 1995 to 1,355 of 100,000 births in 2003, which is the highest in sub-Saharan Africa.

AIDS is not only a health problem in the CAR but also a development problem. The prevalence rate rose from 2.5% in 1985 to over 15% in 2002. The country ranks 9th of the 24 most afflicted countries globally and first of the Central African sub-region.

2.1.3 Outline of the sectors of the economy

Table 3: GDP structure in billions XAF and % for 1995 – 2005

	1995		2000		2003		2004		2005	
Sector	XAF billion	%	XAF billion	%	XAF billion	%	XAF billion	%	XAF billion	%
Primary	246	47	341	53	387	58	402	59	423	56
Secondary	112	21	102	16	79	12	82	12	104	14
Tertiary	164	31	204	32	203	30	202	29	227	30
TOTAL	522	100	647	100	669	100	686	100	754	100

Sources: IMF, BEAC, Government of the CAR, "CAR the country and its potential" CIDCOM 2006

The Central African Economy is based on the agro-rural sector, which employs 80% of the active workforce and contributes in average about 50% of GDP.

The climate allows pluvial agriculture, even with the possibility of two harvests in the south. The country has a dense hydrographical network, which allows the construction of irrigation dams. The surfaces cultivated annually represent less than 1% of the total country surface. The added value of the rural activities is very unequally distributed between food products, products for exports and stock farming. The food products, an important fraction of which is sold on urban markets, dominate the primary sector. For the three principle productions (cassava, peanuts and corn) the quantities sold correspond in average 40 to 50% of the quantities produced. As to the products for export, which consist mainly of cotton, coffee and tobacco, they account in average for 55% of export revenues.

The secondary sector is in an embryonic stage. The manufacturing industry consists of some ten specialized enterprises in different production branches, such as food, chemical, and metallurgical. They have been weakened by the recurring political crises between 1996 and 2003. This sector contributes only 15% of GDP.

The inventories in the CAR have shown substantial pesticide use in the agricultural sector for cotton and coffee cultures, which are a non-negligible factor of soil pollution and human contamination. Emissions of wastewater and industrial waste have been detected and are pollution factors with negative consequences for the environment.

2.1.4 Environmental overview

The current environmental situation in the CAR has three major problems:

- Soil degradation and erosion

- Degradation of biological diversity
- Precarious condition of human settlements

Soil degradation and erosion: one aspect of environmental degradation is the progressive soil erosion. In fact, in spite of the scarce population of the CAR (6 inhabitants per square kilometer) the soils are subject to heavy human load. The itinerant cultures on burnt land, the exploitation and anarchic settlement in the mining zone, the progressive intensification of migration, the abusive practices of starting brushfires, the uncontrolled occupation of urban space and peripheral urban space are serious factors, which impact the soils, which rapidly degrade at the outskirts of cities, in the mining zones and on grazing land, and which lose their fertility in the agricultural zones.

Degradation of biological diversity: the degradation of the environment manifests itself also in the reduction of forest and fauna. The forests cover a surface of 3 million hectares and comprise a variety of woods of great commercial value, such as sapelli and kossipo. They are under increasing pressure from industrial loggers, mine exploiters, etc. The same pressure applies to the fauna. As the transition zone between East and West Africa, the CAR encompasses all animal species of the forest and the savanna. The ten protected zones from the 1970s are all but destroyed today by poaching, brushfires and armed conflict.

Precarious condition of human settlements: the 3.8 million Central Africans are unequally distributed throughout the national territory. In urban agglomerates living conditions have continually deteriorated year after year. In particular, in the capital Bangui the infrastructures are falling apart, the road services hardly function any more, there is virtually no garbage collection, waste treatment or wastewater treatment system in place, which leads to flooding and insalubrity.

2.2. Institutional, Political and Regulatory Framework

2.2.1 Environmental and sustainable development policy and legal framework

2.2.1.1 Environmental policy

The need to implicate environmental considerations into economic growth policies has caused the Government of the CAR in 1989 to create a National Committee for Protection and Sound Utilization of the Environment by Decree no. 89.047 of 23 February 1989. After the Rio Conference a National Committee for Environment and Sustainable Development was founded on 26 April 1994. The mandate of these structures is integrating the environmental decision making process in the framework of decentralized national coordination and to watch over sustainability of economic development strategies.

This process has led to elaboration and adoption of a National Environmental Action Plan (PNAE) in 1999 in response to continued concerns in the recommendations of Action 21.

2.2.1.2 Legal framework

The Central African constitution of 27 December 2004 stipulates in its preamble that “only rigorous and transparent management of the public cause and the environment can ensure harmonious, sound and sustainable development”. Besides, the Government got an environmental draft law validated by the stakeholders, which “aims at defining the principles of environmental

policy, establishing and ensuring the general legal framework for environmental management" on 19 November 2006. The draft law was presented to the Parliament for adoption. Since the Rio summit and the UN Conference on Environment and Development, the Government has signed and/or ratified numerous accords, treaties, environmental protocols and conventions (Vienna Convention for the Protection of the Ozone Layer in 1993, Convention on Biological Diversity in 1995, Framework Convention on Climate Change in 1995, Hayes Accord in 1995, Convention to Combat Desertification in 1996, Cartagena Protocol on Biosafety in 2000, Stockholm Convention on POPs in 2002).

The RCA is a party to WHO, NEPAD and SAICM. The elaboration of the strategic framework of the combat against poverty has taken into account recommendations and directives from these international efforts.

2.2.2 Roles and responsibilities of ministries, public organs and other governmental organizations involved with POPs

In the CAR several actors are directly or indirectly involved in the problematic of chemical products, including POPs management, by their activities or their institutional attributions. These are particularly public or private institutions, NGOs, local grassroots groups, individuals, etc. The initial inventories have revealed that most pesticide storage facilities are antiquated or dilapidated. Consequently, the lack of appropriate infrastructure is the main cause of the site contamination. Definitively, to ease their identification, the actors involved with POPs are allocated in sectors of the economy.

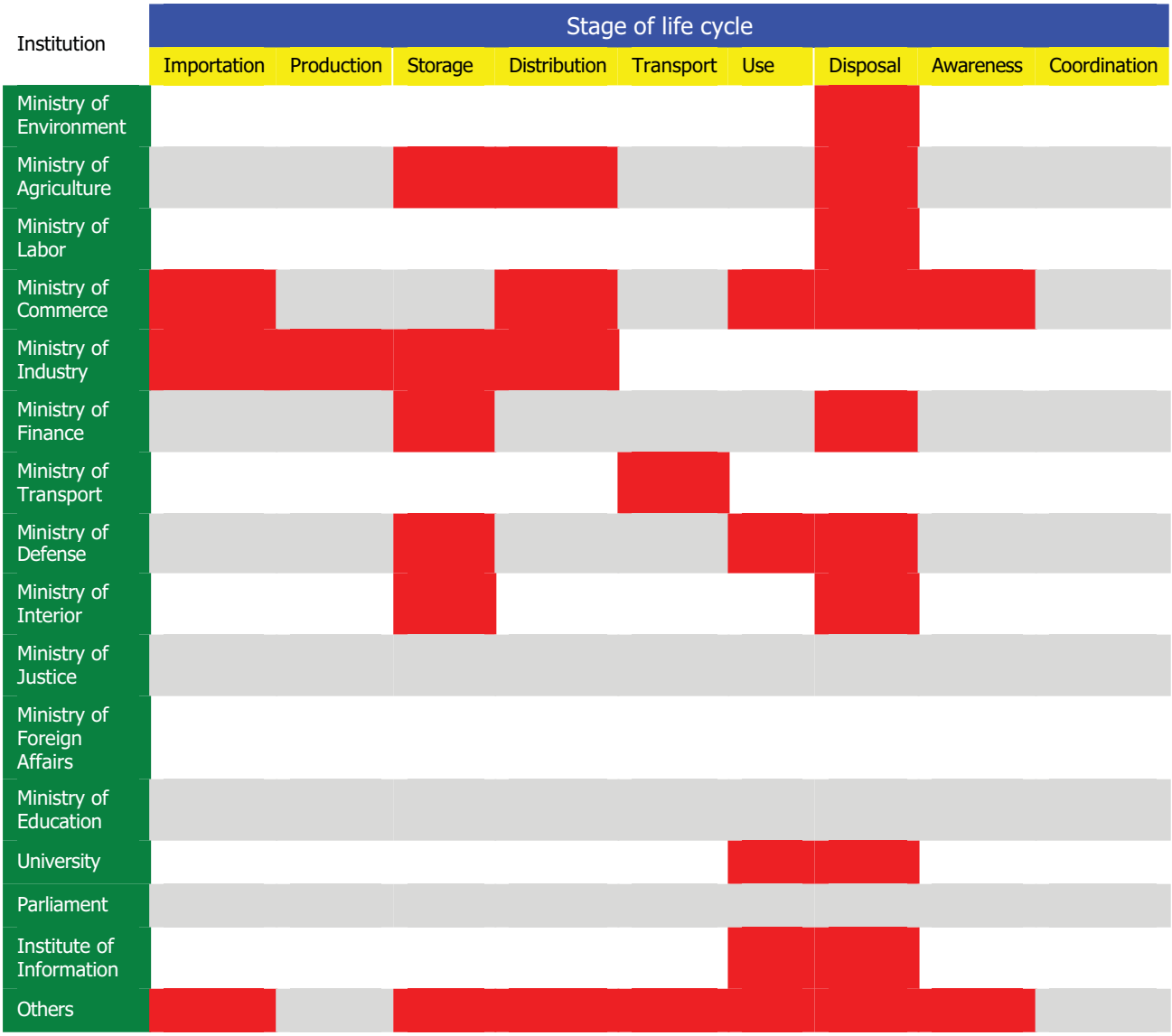
2.2.2.1 Actors possessing or managing POPs, listed by economic sectors

The actors are classified in three categories corresponding to sectors of national economy on the one hand and on the other hand in terms of the three main groups of POPs (pesticides, PCBs and UPOPs). This has helped to identify institutions and individuals concerned with POPs related questions. Generally, these institutions and individuals concerned have a very low level of knowledge and experience in sustainable POPs management.

2.2.2.2 The governmental and paragovernmental sector

The governmental sector of the CAR is by nature and despite its economical difficulties open and attentive to international agreements signed and/or ratified, especially with regard to the Stockholm Convention. It is above all concerned with the signature and ratification of the Convention, regulation of PCBs and other POPs, research, storage, transportation, national coordination (National Steering Committee), control of importation, sale and distribution of pesticides, combating malaria (DDT), management of brushfires by influencing the communes, management of key sectors, such as energy, transport, construction or destruction of public buildings, etc. These roles are assigned to the Parliament, to ministerial departments, and to specialized research institutions: the University of Bangui and the Central African Agronomic Research Institute (ICRA).

Table 4: Responsibilities of governmental and paragovernmental actors



Source: Report of evaluation of institutions involved with POPs management

The paragovernmental sector is constituted by agencies, state-owned enterprises, programs and projects, which carry out several specific economic activities, such as the promotion of coffee cultivation (Central African Agency for the Development of Coffee Cultivation ADECAF), oil palm cultivation and palm oil production (Central African Company of Palm Plantations of Bossongo CENTRAPALM), tobacco growing (Central African Company for Tobacco Exploitation CETAC), support of vegetable growing and support of production and autopromotion in villages. All these organizations are either under trusteeship of ministerial departments or managed by government appointed functionaries. The table above displays a general overview of responsibilities and potential activities of ministerial departments with respect to chemical products management for each stage of their life cycle.

2.2.2.3 The conventional private sector

The private sector, weakened by the military and political crises from 1996 to 2003, follows a different approach compared to the governmental sector. It is more service provider than

manufacturer, because it has to deliver financial results in the context of a competitive globalized economy. In other terms, it is not disposed to bear additional costs, particularly related to PCB management and to replacement of PCB contaminated transformers, which is done exclusively under technical efficacy criteria (obsolescence, power increase, renovation). The most concerned enterprises are the Central African Energy Company ENERCA, which manages the hydroelectric and thermal power plants in Bangui and in the provinces, and the Central African Textile Union UCATEX, which was closed over a decade ago, but with its site potentially contaminated by PCBs or other non-identified POPs.

2.2.2.4 The informal sector

The informal sector has to be considered in the analysis of comportment regarding the three POPs categories.

PCBs and the informal sector

The informal sector is particularly involved by the proliferation of hardware stores, which sell electrical materials, as well as by recycling of electrical transformers, especially of their metal and oil. A transformer may contain up to 20% of its weight in copper, which has significant commercial value for an enterprises of the informal sector. The recovery of copper is often achieved by open air burning with used tires in order to collect in the end resin free copper. This copper is then resold for secondary fusion. Another method is recycling the copper as simple wire after uncoiling it. During the burning the low temperature decomposition of PCBs produces carbon monoxide, chlorine, dioxins and furans.

In conclusion, the specific problem of the informal sector is principally not related to the management of PCB containing transformers during their industrial use, but rather to the recycling of used transformers. No statistical data exists on this activity.

Pesticides in the informal sector

The use of pesticides in the informal sector in not new, in as far these products are employed also for fishing and hunting of large rodents. It is not commonly used by livestock breeders. Smuggling is done with coffee planters as accomplices, who sell pesticides for reaping immediate profits. This pattern was aggravated in 2001 with the looting of shops and stocks of certain enterprises. The contraband scheme is depicted in the flowchart below, which shows that pesticides management is very complex. The planters and the traveling merchants constitute the core of the informal pesticides trade. The part below in the flowchart consists of the distributors, development projects and programs, state-owned companies and rural interest groups, which have unaccountable relations with the informal sector through the planters. However, the trade with fishers, hunters, breeders and traveling merchants (*Bouba Nguéré* or price breakers) is flourishing, though prohibited. It should be mentioned that the informal sector's principle is "to buy and sell everything for a profit". In other words, no performance specifications or quality standards exist for such transactions. The buyer bears the risk and has in turn to find other rogues for his product. The informal POPs sector has evolved in this ambience of insecurity and perpetual risks.

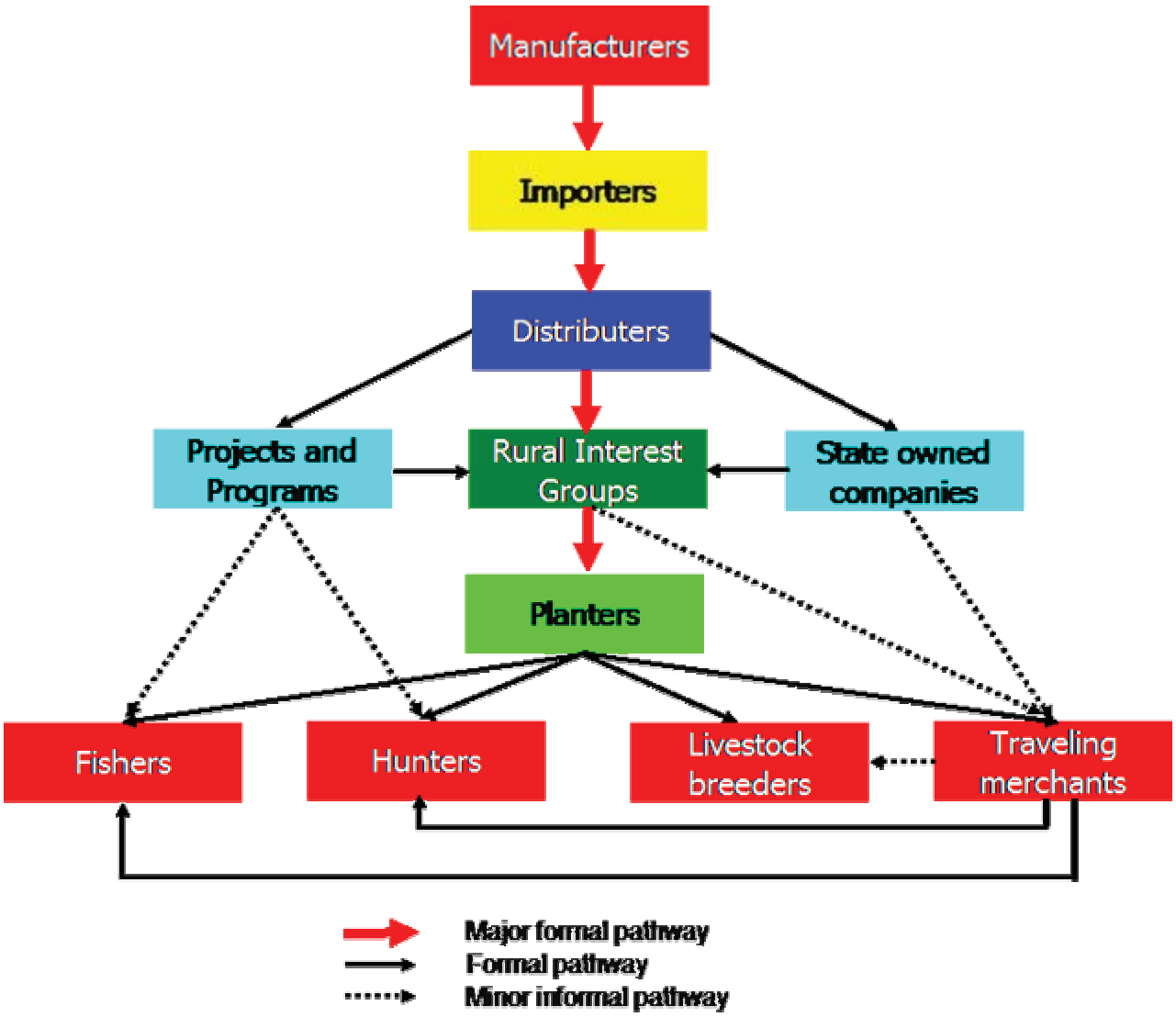


Figure 3: Pathways of the pesticides sector

Pesticides and furans

Dioxins and furans are generated by different sources: collective establishments, hunting activities, blacksmiths, agriculture, eateries, bakeries, brick makers, breeders, management of protected areas, safari activities, transport, etc. Basically, they come from uncontrolled combustion processes, since pertinent industrial activities are rare in the country.

2.2.3 Relevant obligations and international commitments

For the purpose of NIP implementation, the CAR has to take into consideration the following obligations and international agreements other than the Stockholm Convention:

- The Action Plan for the 21 century (Action 21), adopted by the UN Conference on Environment and Development (UNCED) in 1992;

- The Millennium Development Goals, and particularly objectives 4, 5, 7 and 8 aimed at reducing infant mortality, improving maternal health, ensuring a sustainable environment, and establishing a global development partnership;

- The Environmental Action Plan of NEPAD, the global objective of which is "to improve the environmental conditions in Africa in order to contribute to economic growth and poverty eradication, develop Africa's capacities for implementation of international agreements and face effectively Africa's environmental challenges in the global context of NEPAD implementation";

- The Bahia Declaration on Chemical Safety, on the outcome of the Third Session of the Intergovernmental Forum on Chemical Safety (IFCS) in October 2000;

- The Strategic Approach to International Chemical Products Management (SAICM), adopted in the form of the Dubai Declaration, the global political strategy and the global Action Plan in February 2006;

- The international conventions regarding chemical products management:

    - Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal

    - Bamako Convention on the Ban on the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa

    - Rotterdam Convention on the Prior Informed Consent (PIC) Procedure for Certain Hazardous Chemicals and Pesticides in International Trade

    - UN Framework Convention on Climate Change

    - Vienna Convention for the Protection of the Ozone Layer

    - Montreal Protocol on Substances that Deplete the Ozone Layer

    - Convention to Combat Desertification

    - ILO Convention 170, concerning safety in the use of chemicals at work

2.2.4 Underlying principles of current laws and regulations in regard to POPs

The underlying principles of current laws and regulations are:

- The "Polluter Pays" principle

- The principle of common but differentiated responsibility

- The precautionary principle

- The principle of prevention

2.2.5 Principal methods and approaches for POPs and POPs pesticides management, in particular regarding their use and follow-up

The industrial products (PCBs, HCB) and the UPOPs are not yet specifically regulated in the CAR. The dispositions in regard to pesticides management are included in Decree 59/81 of 4 February 1959, regulating sales and spreading of toxic substances, and Law no. 62/350 of 4 January 1962 on Plant Protection in the Central African Republic. The Ministry of Agriculture publishes by ordinance the registers of permitted or prohibited products.

2.3. Assessment of the POPs Problem in the CAR

Persistent organic pollutants are mostly anthropogenic, bioaccumulative and travel long distances across borders far from their sources. They do not spare any nation of the world and pollute more or less severely biotic and abiotic parts of the environment. Among other detrimental effects, POPs weaken reproductive health, intellectual capacity and immune defense. They are also suspected to cause cancer, induce congenital malformations, etc.

The Central African Republic can therefore not escape the POPs problematic. The people and their lives are undoubtedly exposed to a certain extent to the negative effects of POPs produced and used intentionally (substances listed in Annexes A and B of the Convention) and non-intentionally produced (substances listed in Annex C of the Convention).

As it is the case in many developing countries, the question of chemical safety, which is connected to the POPs problem, has not yet been approached in the CAR with the level of priority that it deserves because of its importance for the people's health. Thus, as posed by the Stockholm Convention with regard to human health and environment, this question is relatively new and not well understood in the CAR by decision makers, workers and the general population.

The CAR has decided to actively join the international community in its efforts to fight the negative effects globally. It has participated since 1998 in working towards the Convention, which it signed on 9 May 2002. The ratification process is underway.

In its capacity as a signatory state of the Convention, the CAR benefits from the initial assistance of the GEF for the enabling activities in the framework of a project titled UNIDO-GEF/CAF/02/013 "Enabling Activities on Persistent Organic Pollutants in the Central African Republic".

The main objective of the enabling activities project has been assisting the CAR in the preparation of its national implementation plan in accordance with Article 7 of the Convention. Besides, this project should help reinforce the national capacities for POPs management, maximize the engagement of the state and facilitate the ratification of the Convention.

UNIDO was chosen by the CAR as executing agency for GEF to assist in the project implementation.

At the national level, the Ministry of Water, Forests, Hunting and Fishing, charged with the Environment, is the national agency for the execution of the enabling activities project.

This project has permitted to proceed for the first time to an analysis of the POPs situation in the CAR. Thus, initial inventories of POPs sources and emission quantities have been realized. The

exposition of human health and environment to POPs has been examined and the national means regarding POPs management have been evaluated. These inventories and evaluations allow from now on to clarify the POPs problematic in the CAR, as it will be presented in the subchapter on the aspect of nature, sources and emission quantities, policies and current framework, socio-economic, sanitary and environmental impacts, and proposals for solution approaches.

The year 2004 was chosen as reference year of initial national inventories in order to analyze the POPs situation in the CAR.

2.3.1 Substances listed in Annex A, Part I: POPs Pesticides

Annex A of the Convention lists organochlorinated pesticides of the first generation: aldrin, chlordane, dieldrin, endrin, heptachlor, HCB, mirex and toxaphene.

The national inventory of POPs pesticides was established in 9 of the 16 prefectures, which make up the national territory, following the physical method according to FAO directives.

The researched data showed the identity of POPs pesticides, their quantities in use and in circulation, the areas of application, the stockpiles of obsolete pesticides and the practices of their disposal, the potentially contaminated sites, as well as the regulations, level of stakeholder awareness, infrastructure and national monitoring capacities, available monitoring data and vulnerable social groups.

2.3.1.1 History

None of the POPs pesticides listed in Annex A Part I has ever been produced in the CAR or used as an intermediary in the synthesis of a manufacturing process. However, many of these substances (aldrin, chlordane, dieldrin, endrin and heptachlor) have been used more or less extensively in agriculture (cash crops, stock farming) and public health (fighting termites and malaria vectors). The used quantities, which were internationally purchased or received from donors, have not been evaluated for lack of archives.

2.3.1.2 Current and future situation regarding use and commerce of POPs pesticides

None of the substances listed in Annex A Part I is officially used in the CAR, neither in agriculture nor healthcare. They are principally prohibited by Decree no. 59/81, which regulates sales and distribution of toxic substances, and Law no. 62/350 of 4 January 1962 on plant protection in the CAR. Nevertheless, the inventory revealed sales and application of Xylogyl for treatment of wood, one of whose active ingredients is aldrin.

With the exception of this product it was noted that POPs pesticides are no longer used officially in the CAR. In fact, the cash crop sector (coffee, cacao and cotton), which is the national main user of pesticides, applies good agricultural practices and does not use pesticides with the listed active ingredients any more. Moreover, the stock farming service does not use such products either for the protection of animal health. Nevertheless, there is some concern with regard to the informal sector, which may constitute a source of circulation of these products for vegetable cultures and in-house applications against mosquitoes and termites, as well as for illegal practices of chemical fishing and hunting. Another concern is linked to potential contamination of the environment with residues from large scale use in the rather recent past (the maximal residue

limits from foreign origin, which serve for characterizing POPs pesticides contamination have never been determined). Consequently, sample collection for the purpose of detection is required in the framework of a national monitoring program in order to get a better idea about the magnitude of this problem.

The data collected in the framework of the national pesticides inventory indicates clearly an increase in pesticides consumption in the CAR, without providing the option to establish any relation of cause and effect regarding the evolution of POPs pesticides quantities. In any case, no objective factor seems to significantly change the indication of absence of sales and legal application of POPs pesticides in the country, with the exception of Xylogyl, for which effective and affordable alternatives ought to be found.

2.3.2 Substances listed in Annex A, Part II: PCBs

The second part of Annex A lists industrial POPs: HCB and PCBs.

The inventorying methodology recommended in the enabling activities project is essentially focused on PCBs and equipment containing PCBs. Only this POPs category is treated in this section. The national PCB inventory was established according to the standardized methodology recommended by UNDP. This methodology consists of researching the PCBs in transformers and capacitors, where they are used in closed application. The initial inventory covered only 9 prefectures out of the 16 of the country (56%) and remains partial. In effect, because of insufficient financial means, not all sites in the country, which are potentially PCB contaminated, could be visited. No inventory has been established for partially closed and open applications. However, it is generally recognized that in developing countries electrical transformers are the main source of PCBs. Therefore, the initial national inventory of PCBs in the CAR as established responds well to the expectations of the Convention.

2.3.2.1 History

Commercial production of PCBs started between 1929 and 1930, but they have never been industrially manufactured in the CAR. However, they were imported into the country for use in the area of production and distribution of electricity as dielectric fluids in transformers and capacitors. For lack of statistics and registers, it is impossible to estimate the quantities of PCBs used in the CAR till today or the time of the beginning of their importation, even though the older transformers found in the CAR date back to the 1950s. It should also be noted that in addition to this main source of PCBs, namely electrical equipment, probably other minor sources exist, such as lubricants, hydraulic fluids particularly in lifting machines, special imported paints for different applications mostly in the port zones of Bangui and Salo and certain regions not yet covered by the initial inventory of 2004.

2.3.2.2 Evolution of PCB quantities in electrical equipment

The database of the Central African Energy Company (ENERCA) on transformers and capacitors, even though it is incomplete, is sufficiently representative from the point of view of the national situation. It has permitted to estimate by judgment of the expert the number of electrical transformers and capacitors in the country at about 1,000 with 10% uncertainty.

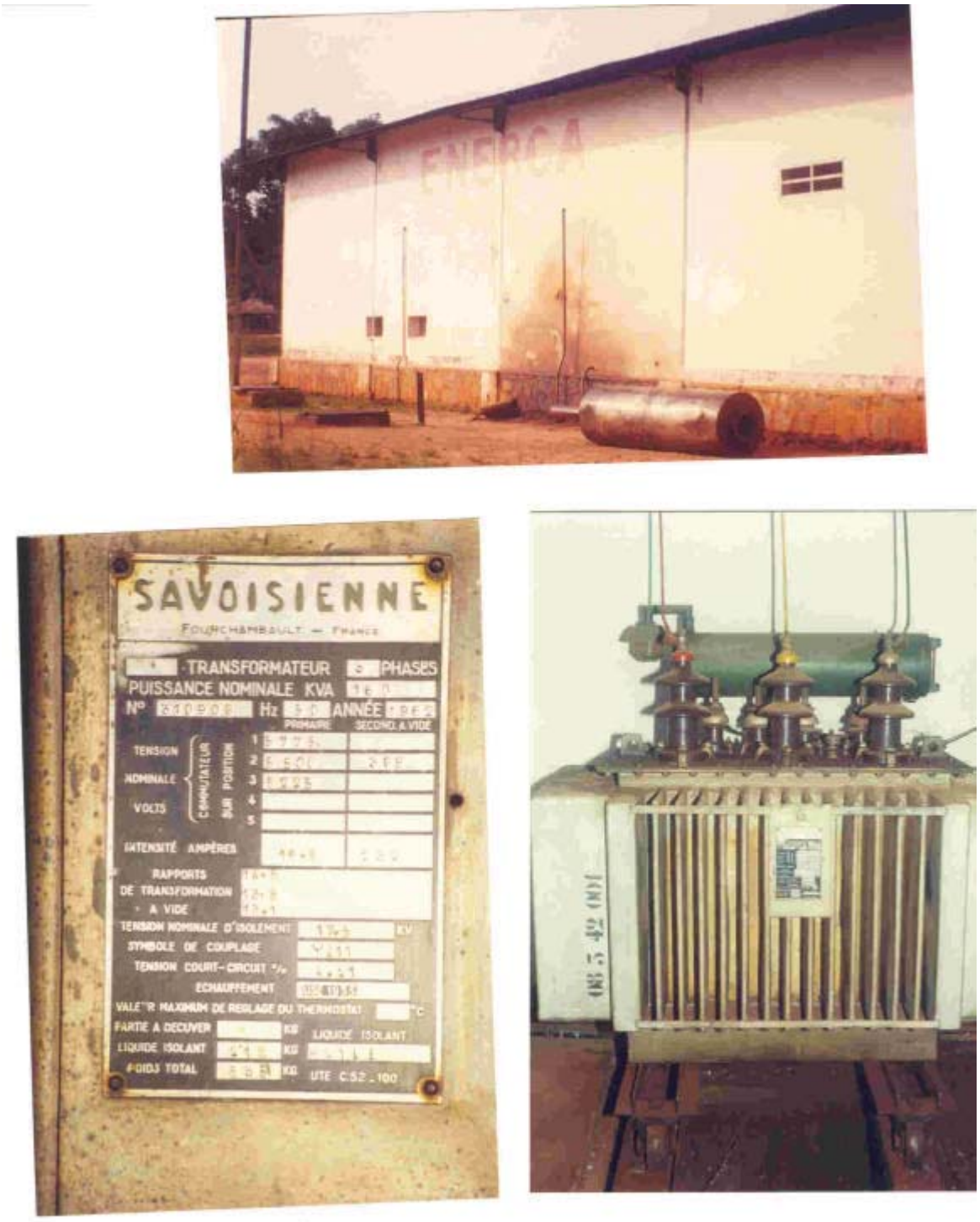


Figure 4: Electrical equipment at ENERCA

Top: Machine hall at ENERCA
Bottom right: ENERCA transformer with retention tank
Bottom left: name plate on transformer
The transformers are presumed to contain PCBs
Source: PCB Inventory Report 2004

Awaiting their disposal, regrouping separately and securing the liquid stocks and solid wastes on a storage platform should be envisaged.

The initial national inventory allowed to individually inspect site by site 434 transformers in total. Most of them were manufactured between 1955 and 1995 and several are presumed to contain dielectric with PCBs.

For lack of complete data it is not possible to present a provisional table of PCB containing fluid quantities in the CAR. In any case, 434 transformers were inspected, 63 units are out of service and should be subjected to appropriate preservation measures.

Table 5: PCB inventory results

Location	Site name	State of the inspected transformers					Comments
		In service	Out of service	Total	Weight of dielectric in tons	Manufacturing date	
Bangui	Groupe Kamach	4	0	4	0.438	1995	Label "PCB free"
Bangui	ENERCA	333	47	380	1,050	1955 - 1976	No label
Boali	ENERCA	19	8	27	50	1955 - 1976	No indication on plates
Bossongo	CENTRAPALM	1	1	2	146	unknown	No indication
Bambari	ENERCA	4	1	5	41	unknown	No indication
Ngaboko	SUCAF	6	3	9	-	unknown	PCB treatment plan*
Berbérati	ENERCA	3	2	5	12.320	unknown	No indication
Gamboula	Swedish Mission	1	1	2	-	unknown	PCB treatment plan
Nola	SESAM/THANRY	0	0	0	-	-	No transformer
Sibut	ENERCA	0	0	0	-	-	No transformer
TOTAL		371	63	434	1,299.76		

* SUCAF has a treatment plan and regularly reviews the information on remaining PCB transformers

Source: POPs Inventories in the CAR

In any case, the indicated PCB quantities are provisional, since firstly the inventory is incomplete in terms of inspected equipment and secondly no chemical detection and quantitative determination of PCB in the dielectric fluids has been carried out.

For more accurate understanding of the national PCB situation an immediate stakeholder consultation should be held in order to update the inventory by inspecting the remaining equipment and launching a national campaign of qualitative and quantitative analysis of PCBs in electrical transformers. Subsequently, to the extent possible equipment with PCBs detected will be appropriately labeled and managed according to its status.

Moreover, all PCB containing transformers in service have to be properly secured to avoid soil contamination and human exposition to leakages of dielectric. Finally, a secured platform must be provided for the temporary storage of all PCB contaminated fluids and solid wastes. All transformers shall be collected in the end of their useful lifetime on that storage platform. It should be mentioned that the Basle Convention, which has not yet been ratified by the CAR, fixes the age limit of a PCB containing transformer at 35 years.

The ministry charged with energy, in collaboration with the ministry charged with the environment and active participation of ENERCA, the logging companies and other stakeholders, should urgently hold consultations for defining the national policy for PCB management. Consultations with other parties of the Convention in the framework of organizations for sub-regional cooperation and integration (CEMAC, CEAC, COMIFAC, etc.) could be arranged by the governments to arrive at a transnational solution. In fact, the PCB problem is of strategic importance, since it touches the energy sector, which is a fundamental element of national security and development. Besides, it would be difficult with regard to commercially available disposal technologies to adopt a purely national strategy. The countries could explore the implementation of a turn-key project, comparable to the African Stockpile Programme (established by the African Union and the World Bank for freeing Africa from obsolete pesticide stocks).

2.3.2.3 Strategy element for PCB management

The national strategy for PCB management pursues the following objectives:

a) Progressive elimination of PCB containing fluids till 2025

Eliminating all measurable PCB emissions into the environment, starting with closed spaces, and progressively eliminating every application that generates emissions that cannot be contained. This strategy must take into account the risks for human health and environment as well as technical and economic factors.

b) Environmentally sound PCB management through out their life cycle till 2028

This encompasses all aspects of prevention at all stages of the life cycle of PCB containing equipment (use, maintenance, etc.), storage, domestic and international transportation, treatment and disposal of PCBs.

c) Integration of PCB management into the environmental management strategy

PCB management will be integrated into the objectives of the national environmental management strategy, in particular chemical substances management and hazardous waste management according to dispositions of relevant Conventions, such as the Basle, Rotterdam and Stockholm Conventions. This way of PCB management aims at reinforcing the environmental management policies of individual operators and enterprises.

2.3.3 Substances listed in Annex B: DDT

The Convention reserves a separate place for DDT, which is at this time the only chemical substance listed in Annex B. The principal reason is the dependence of certain countries on this pesticide in their malaria combating strategies. DDT can be the object of specific exemptions for

production and/or use exclusively to fight malaria vectors. DDT is inventoried exactly the same way as indicated in paragraph 2.3.1 for Annex A Part I pesticides.

2.3.3.1 History

Like the Annex A pesticides, DDT has never been manufactured in the CAR. However, like several organochlorinated pesticides of the first generation, it was imported into the country for agricultural applications (coffee, tobacco and cotton), animal and human healthcare, especially during the fruitless efforts to eradicate malaria by large scale aerial spraying. The emerging resistance of mosquitoes towards DDT led to abolishing its use in favor of other pesticides and non-chemical fighting techniques. Today, in addition to measures of hygiene, sanitation and other mechanical barriers, the use of mosquito nets impregnated with synthetic pyrethroids (Permethrin, Deltamethrin) constitutes the cornerstone of the fighting strategy against malaria in the CAR in the framework of the national action plan "Roll Back Malaria".

2.3.3.2 Current and future use and trade

The inventory has not revealed any usable or obsolete stocks, or any official use of DDT in the CAR. However, it is possible that, like with Annex A pesticides, the informal sector is involved in current DDT trading at a level that is hard to gauge. Consequently, it is possible that vegetable growers and small farmers use it. It should be mentioned that the presence of DDT in certain domestic pesticides used in public hygiene (mosquito coils) might in fact conform to the Convention's dispositions. However, during the updating of the national inventory such products should be detected, their DDT content determined and the use should become subject to a specific exemption.

The particular status of DDT in the Convention authorizes its production and use for fighting malaria vectors in different parts of the world. Therefore, there is a risk for continual circulation of DDT in the informal sector in the CAR, particularly because of the porous borders.

In the future no objective factor in health policy seems to support the return of DDT to the arsenal in the fight against malaria. Regarding the reduction/elimination in the CAR, the potential plan to make explicit reference to DDT and the effective application of Law no. 62/350 of 4 January 1962 on Plant Protection, together with the intensification supported by the current anti-malaria policy, are certainly objectives that can be reasonably pursued with the goal to eliminate definitively the use of DDT.

2.3.4 Substances listed in Annex C: UPOPs

In contrast to POPs pesticides and PCBs, which are intentionally produced for different applications, polychlorodibenzodioxins (PCDDs or dioxins) and polychlorodibenzofurans (PCDFs or furans) have never been intentionally produced in large scale for any purpose. On the contrary, this POPs category, consisting of 135 congeners of PCDD and 75 of PCDF, are accidentally generated as by-products of combustion processes (high temperature incineration, biomass burning, combustion of fossil fuels, etc.), certain industrial processes (metallurgical, chemical, paper, mining, etc.) and also certain biological processes (biomethanization, composting, etc). In addition to PCDD/PCDFs, Annex C lists also hexachlorobenzene (HCB) and PCBs, which are also formed as unintentional by-products under the same conditions as dioxins and furans. UPOPs are mostly linked to anthropogenic activities, but there are known natural sources, which are not pointed out in the Convention (volcanic activity).

The standardized inventorying methodology recommended by UNEP for UPOPs (the Toolkit) at this time only aims at identifying and quantifying the sources of dioxin and furan emissions. The national inventory of dioxins and furans in the CAR has been established according to this methodology, based on source identification, determination of activity statistics and application of emission factors.

2.3.4.1 History

Of all POPs, the dioxins and furans are the least known ones and virtually unknown in the CAR. In fact, with the exception of the chemical accident in Seveso (Italy, 1976) and the "Belgian dioxin chicken" affair in 1999, very few Central African have ever heard of dioxins and furans.

2.3.4.2 Local source categories, current and projected emissions

The initial national inventory has allowed to identify activities, which can be classified as emission sources of dioxins and furans in the CAR and, in most cases, to evaluate to what extent each of these sources contributes to the national UPOPs emission of 170.223 g TEQ in 2004 (Table 6).

Table 6: Dioxin and furan emission sources and quantities in the CAR (2004)

	Source category	Annual emission (g TEQ/a)				
		Air	Water	Soil	Products	Residues
1	Waste burning	31.594	NA	NA	NA	NA
2	Ferrous and non-ferrous metal production	NA	NA	NA	NA	NA
3	Power generation and heating	2.4	NA	ND	ND	0.00
4	Production of mineral products	2.75	NA	NA	NA	ND
5	Transportation	29.879	0.00	NA	0.00	NA
6	Uncontrolled combustion processes	52.2	NA	NA	NA	NA
7	Production of chemicals and consumer goods	NA	NA	NA	NA	NA
8	Miscellaneous	51.4	NA	NA	NA	NA
9	Disposal/Landfilling	20	NA	NA	NA	NA
10	Identification of potential hot-spots					
	TOTAL	190,223				

Source: National inventory report for Annex C substances (General POPs Report 2005)

7 out of nine quantifiable principal source categories were identified as dioxin and furan emitters in the CAR. In fact, the categories referring to metal production and to production of chemicals are not existent in the country. Of the 7 identified categories, only 6 generate significant emissions into the 5 environmental media: air, water, soil, products and residues. Improving data collection in order to produce a more reliable inventory is a priority for the envisaged action plan on UPOPs.

In any case, comparing the data by categories makes it obvious that the category "uncontrolled combustion" is the main source. The third category refers to different sources using treated wood for power generation, heating and cooking. In the action plan according to Article 5, it will be necessary to seek the cooperation of these companies, which are very important in the national

economic context, in order to examine with them the option for applying BAT and BEP for the reduction of emissions. The adoption of cleaner production technologies by the companies will surely improve their brand image and their international competitiveness.

Incineration is a major source of Annex C Part II emissions, which should be reduced. The Convention obligates the Parties to bring such activities up to standards by employing best available techniques and best environmental practices as soon as possible and at the latest four years after the Convention enters into force for the concerned Party.

The use of technologically better performing incinerators, e.g., with minimum air pollution control, will already allow reducing UPOPs emissions by the factor 10. Besides, such installations, operated by qualified and motivated staff, will certainly contribute to reducing the part of hospital waste that is currently burned in an uncontrolled way in holes as compared to brick and mortar incinerators of the De Monfort type, very few of which are used for different reasons yet to be clarified.

A policy encouraging the use of fossil fuels (gas or oil) instead of plant biomass (wood, charcoal, agricultural residues) for cooking is an accomplishable goal. Another objective for emission reduction would be incentives for the purchase of improved ovens and hearths, which are already available, and also the support of research and development aimed at increasing their performances.

It must be stressed to which extent the management of the energy sector is without doubt a decisive point of synergy between several conventions to which the CAR is a party: the POPs Convention, the Framework Convention on Climate Change, the Convention on Biological Diversity, the Convention to Combat Desertification, and the Cartagena Protocol on Biosafety. The focal points of these different conventions could be advantageously associated in coordinating their activities.

Transportation activities on land using leaded fuel contribute only a small fraction of total emissions. The main emission sources in the transportation category are inexpensive cars with low-performance engines, motorbikes with 6 – 8% of oil added to the fuel and leaded gasoline. Realistic reduction options are not evident on the national level. On the other hand, a regional or sub-regional approach, such as an action plan for phasing in unleaded gasoline in the CEMAC area, could be proposed.

On a medium or long term scale, significant increase of industrial emission, in particular from new production facilities that were installed recently, cannot be excluded.

Realistic prevention activities could include the implementation of a national promotion policy for quality and cleaner production, which would encourage manufacturers to adopt international standards (quality program, ISO 9000, ISO 14000, etc.), which respect human health and environment more.

As to the emissions, it ought to be remembered that in addition to the nine main source categories, which can be evaluated according to the methodology, a tenth category called “hot spots” exists, whose emissions cannot yet be quantified for technical reasons. Nevertheless, this category has to be taken into account in the national source inventory. This last category exists indeed in the country and includes: large municipal waste dumpsites, artisanal foundries, sites for storage and handling of PCB containing electric equipment, inadequate obsolete pesticides stockpiles, etc.

By simple expert judgment one can see that brushfires and open air waste burning are the main contributing factors of dioxins and furans, followed by domestic cooking with coal or charcoal, use of leaded gasoline, and mineral production industry. Besides, it should be underscored that the analysis of the national situation with regards to UPOPs should be considered tentative for several reasons: the use of emission factors calculated in developed countries apart from specific realities; the current imperfection of the Toolkit methodology; the difficulty to obtain reliable activity statistics, taking into account the incoherence with accuracy requirements of the Convention, in the formats currently available for the country's planning needs; the significant informal activities, which are statistically not accessible, etc.

However, the results obtained for the CAR are not at all in contradiction with the expectations of the experts, who estimate for now that uncontrolled combustion of biomass and of all sorts of waste would surely constitute the main source of dioxins and furans in the very poorly industrialized developing sub-Saharan countries. The inventory, established for the first time in the CAR, has not only provided the country with national specialists for the requirements of implementing the Stockholm Convention, but has also contributed to awareness of these highly toxic pollutants, which were absolutely unknown by the great majority of the population. The inventory allowed collecting interesting qualitative and quantitative data and identifying the stakeholders in regard to drafting a national action plan.

For updating the national inventory and also for the periodical reporting requirements to the Conference of Parties, it will be indispensable for the Government to revise the formats for collection national statistical data in order to harmonize them with the transparency and reliability criteria of the Convention. The creation of a true database of national main source categories for their better classification and characterization in very short time should be a priority for the Ministry charged with the Environment.

2.3.5 Obsolete stockpiles of POPs, contaminated sites and wastes

2.3.5.1 Obsolete stocks and wastes of intentionally produced POPs

a) Stocks and wastes of POPs pesticides and other obsolete pesticides

The inventory results do not show specifically the quantities of obsolete POPs pesticides in stock. The national stock of obsolete pesticides reduced itself to 557 liters of all liquid formulations mixed and an undefined quantity of solid waste. These could constitute a secondary source of POPs pesticides emissions, since the stocked obsolete pesticides could have been contaminated in the same storage facilities, which contained before POPs pesticides at the time of their use. The environmentally sound disposal of these obsolete stocks as POPs pesticides contaminated waste is a necessity.

The technical and financial assistance in the framework of the conjoint project "African Stockpile Programme" between the African Union and the World Bank, aimed at cleaning Africa from all obsolete pesticides stocks, is an opportunity for the CAR. Already it is necessary to make the key stakeholders aware of this question in order to avoid the application of environmentally damaging disposal practices, such as burying (source of soil and water contamination), wild burning, etc.

Securing the stock immediately by collection and restocking all small individual stocks on a temporary storage area according to international standards should be envisaged.

The Ministry of Agriculture and Animal Husbandry, in cooperation with the Ministry of Water, Forests, Hunting and Fishing, charged with the Environment, the Ministry of Health and the other key stakeholders have important responsibilities to lead in this action, according to their respective mandates and specific tasks that will evolve.

b) Obsolete stocks and wastes of PCBs

The inventory does not mention the existence of used PCB containing oil stocks. This is probably an indication of their dissemination linked to free sales of decommissioned transformers.

2.3.5.2 Sites potentially contaminated by POPs (Annex A, B and C substances)

a) Sites potentially contaminated by POPs pesticides and their wastes

Because of lacking results of a complete evaluation of the contamination and its extension, as well as of an analysis of sanitary and environmental risks incurred, the sites which are likely to cause problems are called in this document "potentially contaminated sites".

However, the CAR has a serious problem in particular with pesticide contaminate sites, the management of which requires a special strategy in terms of absolute localization by geographic coordinates, in terms of evaluation of sanitary and environmental risks , in terms of prioritization for sound securing or eventual rehabilitation. The indicated cases concern private or state-owned pesticides storage facilities, the most troubling of which are shown in the following table:

Table 7: Contaminated sites in Bangui and the coffee and tobacco prefectures

Location	Owner	Contaminated site	Comments
Bangui	ADECAF-PORT ORCCPA-PORT	Port of Bangui	Contaminants not determined
Bangui Birlo Village PK22 Damara route	ADECAF ORCCPA ADECAF	Bimbo PK22	
Mbaïki Village Bosongo	ISDR Centrapalm	ISDR site Centrapalm	
Nola Bayanga Nola	SESAM sbb ADECAF	Nola Bayanga Nola	
Kongbo	PAPAAV	Kongbo	
Gamboula Berberati Berberati Gamboula	CETAC ONG-ICA ADECAF THANRY	Gamboula site Berberati site Berberati site Gamboula site	

Source: Inventory Report/Pesticides in the forest zone for coffee and tobacco cultivation

An evaluation of these sites according to the methodologies is recommended for the purpose of prioritization and eventual rehabilitation. Since the CAR has no capacities, technical assistance will be necessary at least for the training of national experts.

Figure 5: Contaminated sites (obsolete pesticide storage sites)

b) Sites potentially contaminated with DDT

No site was identified during inventorying that was contaminated by DDT only. The assessment made above in 2.3.1 for other POPs pesticides pertains also to DDT.

c) Sites potentially contaminated with PCBs and their waste

The stocks of the river port in Bangui and other storage facilities of the zones of Bangui and of CETAC and ADECAF (Table 7) need to be secured immediately.

d) Sites potentially contaminated with UPOPs

Sites potentially contaminated with UPOPs are also classified as "Hot Spots" or "reservoirs".

2.3.5.3 National regulations applicable to POPs stocks and contaminated sites

The legal instruments applicable in the CAR to POPs stocks and contaminated sites are referred to in Article 9 of the Central African Constitution ("The Central African Republic guarantees every citizen the right to work, the right to a healthy environment…"), and somewhat more specifically in the in the project law constituting the Environmental Code, and in Law no. 62/350 of 4 January 1962 on Plant Protection.

The responsibility for application of laws and regulations on management of chemical (including POPs) stocks and contaminated sites lies in principle with the local communities. The existing laws will certainly serve as a base for a more specific regulation following the "polluter pays" principle with application texts and appropriate control mechanisms.

2.3.5.4 Directives, corrective measures and data on site emissions

Regarding directives for emissions one can resort to the Environmental Code, but it does not contain any national data on site emissions.

2.3.6 Summary of circumstances regarding exemptions for future use

2.3.6.1 Annex A Part I Substances

The CAR needs a specific exemption, which should reasonably not exceed a period of 10 years, for the continued use of Xylogyl (containing aldrin) for the treatment of construction wood. This period will allow organizing the coordination of stakeholders for elaborating and applying a specific regulation and choosing an effective and competitive replacement product.

2.3.6.2 DDT

The CAR has excluded this molecule from its current strategy for combating mosquitoes, which is based on the use of mosquito nets impregnated with synthetic pyrethroids, among other means. This represents an effort towards reduction or elimination of DDT use. To reach this goal, it is important to support and encourage the present strategy. It should be mentioned that official reintroduction of DDT would also increase the risk of illegal use for agriculture and other purposes. However, since the country is located in a zone with endemic malaria, it could as a

precaution ask for a specific exemption for DDT base pesticide formulations for combating malaria.

2.3.6.3 PCBs and PCB containing equipment

The Convention allows that all Parties continue the use of PCB containing equipment till 2025, if the equipment is in good state and has not yet reached the end of its life cycle, under the condition that it is appropriately equipped (impervious retention tank, concrete with epoxy coating, gas pressure/temperature detection system). Consequently, no exemption has to be asked for at this time.

2.3.7 Current monitoring programs for emissions and health and environment related incidents

Currently no national monitoring program for POPs emissions and their impact on human health and environment exists in the CAR.

2.3.8 Existing information exchange, education and communication mechanisms

2.3.8.1 Systems for information, education and communication

According to the dispositions of the organic law of the Ministry of Water, Forests, Hunting and Fishing, charged with the Environment, the Directorate General of Environment is charged with elaborating the national policy in the areas of information, education and communication with respect to combating pollution and preventing risks. The Directorate of Environment acts in the fields through its regional directorates charged with the environment, which in principle are charged to cooperate with environmental NGOs, the media and all other stakeholders for awareness raising and education.

Theoretically, the CAR has a system for information, education and communication, determined by a legal framework and an organizational infrastructure, which is apt to ensure awareness raising for the environment and, more specifically, in accordance with the Stockholm Convention (Article 10).

In the field, this system is unfortunately not operational at this time because many actors ignore virtually all conventions signed or ratified by the CAR with respect to environment and specifically to chemical products. Thus it turns out that the Government does not have a policy for informing NGOs and other stakeholders outside of the Government on chemical products management including POPs management.

The objective for the Directorate General of Environment to envisage is to reexamine in short term the IEC system in order to make it more operational for the coordinated and integrated implementation of the AME.

The CAR does not yet have a toxicological monitoring system for information management and for dealing with emergency situations in pesticides management in general. This is a major gap to be filled. The Ministry of Health and the Ministry of Agriculture and Animal Husbandry, in cooperation with the future National Institute for Chemical Safety under the aegis of the Ministry

charged with the Environment, should play the primary roles in putting such alarm system into place.

2.3.8.2 Target groups for awareness raising on POPs

a) POPs pesticides

It can be considered that the different actors in the CAR have a rather good knowledge of the dangers of pesticide use in general. In any case, as far as POPs pesticides specifically are concerned, only some actors are informed about the severity of their damaging effects on health and environment. Many high-ranking decision makers and the workers and the public in general are ignorant about effects of POPs pesticides.

Among the POPs pesticides, DDT has a special place in the CAR. In fact, the designation DDT is used for all pesticides, which creates often confusion. The level of awareness towards DDT is not higher than towards other pesticides in general, with the exception of the best informed actors.

b) PCBs

Very few actors, who are in contact with PCB emission sources, know about their mere existence and even less so about their detrimental effects on health and environment. The workers handle the fluids, which are potentially PCB contaminated, without any safety precautions. As far as ENERCA is concerned, is appears to have some knowledge about PCBs, which is basically limited to the decision making staff. However, the absence of voluntary dispositions, in particular of a management plan for PCB containing liquids and their wastes, indicates that the PCB problem is not fully understood.

The sale of electrical transformers at the end of their life cycle should be immediately prohibited by regulations. During the interim phase, as long as the national inventory is not yet complete, the owners should be obligated to have equipment, which is earmarked for sale, tested for the absence of PCBs.

The Directorate General of Environment, which is charged with national policy and legislation for the fight against pollution and with environmental norms and standards, the Directorate charged with Energy, the authority for the regulation of the energy sector, as well as the ministry in charge, should very rapidly coordinate actions in this regard.

c) UPOPs

In the CAR, as in the other countries of the Central African sub-region, the ignorance on UPOPs is practically universal. Most dioxin and furan emissions are released into the air and all people are daily exposed. For lack of monitoring data on the status of contamination in the risk group of, e.g., breast-feeding mothers (because of the campaign in favor of breast-feeding), the UPOPs problem should absolutely have priority for awareness raising on daily source activities, as well as for the requirements for the reports to the Conference of Parties. The current national emissions may be modest, but the high toxicity and the pathways of exposure (breathing, inhalation of particulate, contamination of not protected food, etc.) are aggravating factors.

2.3.8.3 Mechanism of information exchange with other parties of the Convention

According to stipulations of Decree 06.327 of 20 July 2006 on organization and function of the Ministry of Water, Forests, Hunting and Fishing, charged with the Environment, and determining the attributions of the ministry, this department is charged with coordinating the elaboration and implementation of the national environmental policy. Conforming to these attributions, it will play the role of institutional focal point as required in Article 9 of the Convention.

A coordination mechanism will be installed between this ministry, the Ministry of Foreign Affairs, which is in charge of international cooperation, and the other technical ministries, which are most involved because of the National Steering Committee with the implementation requirements of the Convention and participation in sub-regional, regional and international cooperation.

2.3.9 Relevant activities of stakeholders of the civil society

Non mandated mechanisms for chemical products including POPs management are practically non-existent in the CAR. Enterprises, which carry out voluntary actions or programs for mandatory precaution, are rare, because they cannot benefit from economic incentives. However, the coffee and tobacco growers are following FAO recommendations and do not use POPs pesticides any more. Some NGOs and most of the national media have programs on environmental health including sometimes questions of chemical safety.

2.3.9.1 Voluntary initiatives of the private sector

Despite the current absence of a national policy of incentives, some companies and enterprises have voluntary initiatives for reduction/elimination of POPs, which is worth stressing.

a) POPs pesticides

Since the 1980s and in spite of lacking national regulations specifically for POPs pesticides, the Central African Company for Textile Development (SOCADETEX) and ACDA have referred to FAO recommendations regarding environmental preoccupations (good agricultural practices) in their strategies for research, choice and implementation of techniques for the protection of cotton plants.

b) PCBs

No specific action can be reported.

2.3.9.2 Activities of NGOs and the national media

As industrial POPs (PCBs) and UPOPs are generally unknown, only phytopharmaceutical products, or pesticides in general, have been the object of NGO and media activities with regard to the POPs Convention. Nevertheless, the Inter NGO Council of Central Africa (CIONGA), the Central African Organization for Nature Defense (OCDE) and the Study Center for Information Dissemination (CEDIFOD) have some competence on the POPs problem. However, they are not yet active in this area due to lacking material and human resources.

Nevertheless, it ought to be underscored that in the area of chemical safety these NGOs are not sufficiently informed. The inaccessibility of information has different reasons: absence of a true national IEC/CCC strategy in chemical safety; insufficient communication between NGOs and pertinent information holding structures; insufficient human and material resources of NGOs.

The state-owned and private national media participate effectively in general environmental awareness raising, but only little of the information, disseminated mostly in French, reaches the target groups both in cities and in the villages. Rural and local radio stations are major stakeholders and their capacities should be augmented.

Consequently, the Directorate General of Environment has to be the facilitator of national IEC/CCC and develop a strategy shortly. One of the objectives that can be targeted is to develop over the next five years an integrated IEC component specifically for chemical safety in general with a particular accent on the conventions, which concern chemical products and to which the CAR is a party. The Ministry charged with Communication and Civil Education ought to be a stakeholder.

2.3.10 POPs management and monitoring means

2.3.10.1 Judicial and institutional infrastructure for POPs management

a) National judicial infrastructure applicable to POPs management

The CAR does not yet have any adequate judicial instruments for the management of dangerous chemical products in general and for POPs in particular.

The Central African Constitution in its Articles 9 and 61 elevates the state's obligation to protect human health and environment to a value of constitutional rank in broad generality.

In a more specific way, legislation concerning the environment can be found in the Environmental Code, which is currently in the adoption process. This document contains general dispositions for waste management (section III), emissions into different media of the environment (section IV), and chemical products and radioactive materials that are dangerous for the environment (section V). It also addresses the question of responsibility and liability for remediating damages to human health and environment (section VII). In general terms, the Environmental Code is a legal base for elaborating specific laws on POPs.

Law no. 62/350 of 4 January 1962 on Plant Protection does not cover phytopharmaceuticals, but plants in a general manner. It prohibits the production, trial, conditioning or reconditioning, storage, use or commercialization of all products that are not officially recognized and authorized. This law, its application decree (no. 98-0099/PR of 30 September 1999) and the respective edicts (Interministerial Edict no. 39/MAEP/MFP of 28 December 1999, Edict no. 03/MAEP/SG/DA of 20 January 2000), reviewed against the standards of the Stockholm Convention and other pertinent conventions for chemical products management and effectively applied, will allow to manage all current and future POPs pesticides.

In contrast to pesticides, industrial POPs (PCBs) and UPOPs are very little known by the CAR's legislators and not yet specifically regulated. This is a legal gap that should be filled very rapidly to avoid the spreading of PCBs in the environment and above all their

inappropriate uses that threaten human health (food, cosmetics, soaps, etc.) In fact, because of lacking regulation, uncontrolled sales of transformers are an existing harmful local practice.

Apart from regulation, an element of national policy could be based on governmental incentives for large possessors of contaminated equipment in order to encourage voluntary replacement. A realistic prevention measure could be adopting a national policy for the promotion of quality and cleaner production technologies, which motivates manufacturers to adopt international norms (ISO 9000, ISO 14000, etc.) that better respect human health and environment.

b) Institutional framework for POPs management

The government institutions, which are most concerned with managing POPs and other chemical products, are the ministries charged with environment, agriculture, health, labor, commerce, industry, transport, education, research, economy, foreign affairs, justice, security, national defense and civil protection, mines and energy, planning and international cooperation.

The attributions of the different ministries are relatively well known as far as chemical products management in terms of product nature and use is concerned. However, the domain is characterized by fractioned competencies and partitioned structures. The absence of effective coordination of measures on each level and the ignorance about actions taken by other structures as a result of lacking information exchange result in lack of optimization in sound chemical products management.

Presently, the Ministry charged with the Environment does not have any administrative procedure for chemical products management. On the whole, most ministries are not legally equipped for intervention in management and control of chemical product management. As for the Ministry charged with the Environment, the Ministry of Health, the Ministry charged with Agriculture, the Ministry charged with Energy or the Ministry charged with Commerce and Industry, none of them deals with the disposal of chemical products and waste. Besides, all administrative structures suffer from weak human and material resources.

In the CAR no real mechanisms exist yet for interministerial or intersectoral coordination of chemical products management, which would facilitate coordinated sharing of responsibilities and cooperation. The existing mechanisms are often only partially representative and generally not functioning.

It can be said that in the institutional domain for POPs management in the CAR the stakeholders are not yet effectively involved. For those who seemingly are, the roles and responsibilities are only generally defined and partitioned. The only operational coordination framework is the National Steering Committee, which should be updated for the supervision of the implementation.

Measures should be envisaged for the reinforcement of existing structures and for establishing clear institutional arrangements, which specifically define the different responsibilities and their coherent partition between stakeholders, especially regarding the life cycle, in an operational coordination of different structures in view of POPs management complying with the Convention. This is an important immediate prerequisite on which other measures for the implementation of the Convention in the CAR depend.

2.3.10.2 Infrastructure for POPs monitoring, sample collection and analysis

a) National capacities for POPs pesticides monitoring

Among national infrastructures and capacities for POPs pesticides monitoring, laboratories with weak intervention capabilities exist in some government structures:

- University of Bangui
- Central African Institute for Agronomic Research (ICRA)
- Animal Health Service

Since they do not have adequate budgets, the laboratories of these structures do not have monitoring programs that include POPs evaluation. Now such program on the national level will be indispensable for their detection and monitoring their levels over time in humans, food, water, and other media of the environment, in order to evaluate the effectiveness of existing measures for the pursuit of the Convention's objectives. It should be mentioned that the CAR does not have yet a functioning toxicology laboratory. In the short term, the creation of such a structure is certainly not realistic. Probably it is more opportune to envisage the creation of a National Institute of Chemical Safety (INSC). This institute would include:

- Chemical laboratory
- Service for chemical documentation and information
- Service for toxicological and epidemiological documentation
- Information service for best environmental practices and clean technologies
- Environmental training and education center

Human capacities and resources exist but are quantitatively and qualitatively insufficient. They have to be reinforced. In particular, the CAR lacks a sufficient number of toxicologists and ecotoxicologists, as well as specialists for analysis and management of environmental risks. The country must acquire these absolutely indispensable competencies for elaboration and execution of the national POPs monitoring program.

Of all POPs the pesticides are the easiest ones to detect and quantify in the biotic media of the environment, water and earth. The CAR should have a GLP laboratory (Good Laboratory Practices) for pesticide analysis in different commercial commodities and for pesticide residues in general. The existing laboratories should be audited in order to identify one that is best suited for reinforcement of human, material and technical resources.

b) National PCB monitoring capacities

The technical and financial requirements for PCB analysis are more demanding than for POPs pesticide analysis. Nevertheless, the detection of PCBs for inventory purposes is simply accomplished by ready-to-use field tests. This detection is an important and indispensable

component for the PCB inventory, because only this allows to classify more precisely all equipment in the nation.

c) National UPOPs monitoring capacities

The country does not have enough high level chemists, who are qualified in analytical techniques, at the University of Bangui for the analysis of dioxins and furans in environmental media. Besides, the CAR does not have the appropriate analytical instrumentation. Unfortunately, it is not realistic to plan the procurement of such instrumentation, not only because of its prohibitive cost but also because of the enormously difficult maintenance.

It becomes clear from the above that the CAR needs a national program for POPs monitoring. In fact, without such program it would be illusionary to follow-up in the field on the effectiveness of measures in view of reaching the goals of the Convention, which implicates if not the complete elimination of POPs emissions, at least their continual minimization for the reduction of risks to human health and environment. The aim of this program is to monitor over time the development of POPs in the different environmental media. Human and material resources are needed for the establishment of the National Institute for Chemical Safety (INSC).

2.3.10.3 Infrastructure for research and development on POPs

The Ministry charged with higher education and scientific research, the Ministry charged with public health and population, and the Ministry charged with agriculture and animal husbandry possess structures like universities, institutes or specialized laboratories, which have for the purpose of their regular work (with the exception of toxicology and risk analysis and management) human and technical capacities for research and development with respect to POPs. However, the country does not have a laboratory that is GLP (Good Laboratory Practice) accredited, which could be used in the POPs domain. Such structure will be indispensable at INSC for the national monitoring program in the implementation context.

2.3.10.4 Relation between national infrastructure and international programs

The structures for research and development mentioned above do not yet participate in concerted actions on the international level in regard to POPs or, more generally, chemical safety.

No specific scientific research on the international level has been carried out on POPs (environmental analysis, substitutes for POPs pesticides, etc.) in the CAR. Particular work of researchers has been mostly limited to small individual projects and was rarely of national or international scale.

At the Central African Institute for Agronomic Research (ICRA) interesting research programs exist on the use of natural pesticides of vegetal origin in truck farming and post-harvest management. Equally, non-chemical approaches for combating termites in corn stocks have been evaluated. Besides, integrated combating actions could be applied in the agricultural domain.

All these activities are only aimed at POPs pesticides in agriculture or public hygiene. PCBs and UPOPs have never been objects of targeted research before the inventory work of the enabling activities of the Convention. The implementation of a national monitoring program for POPs by INSC will inevitably stimulate targeted research resulting from synergies.

2.3.11 POPs incidents

2.3.11.1 Monitoring data on health and environment

a) POPs pesticides (Annexes A and B)

The CAR has never had a specific national monitoring program on health or environmental effects of pesticides, which could also cover POPs pesticides. Consequently, no national database exists and no validated monitoring data is available. However, partial, fragmentary and relatively recent studies have in fact brought about scientific prove for a certain risk of exposure of humans in their life setting by Annex A and B pesticides.

Like the other POPs pesticides, DDT has never been an object of any systematic monitoring program in terms of contamination of humans, food, drinking water and other environmental media. Equally, some indicators confirm a certain level of DDT contamination. The implementation of a POPs monitoring program, supported by adequate resources, is an indispensable precondition for establishing a national monitoring database. The creation of an expensive toxicological laboratory is not envisaged for the short term, but instead the reinforcement of the human and technical capacities of an existing laboratory, which is chosen unanimously by the stakeholders as a reference based on an evaluation of the capacities of laboratories existing within the above mentioned structures.

b) PCBs (Annex A)

No local data on PCB contamination of humans or other environmental media exists. This gap confirms the ignorance even of scientists about the PCB problem or the weakness of the available technical infrastructure, which is not suitable for PCB analysis. The absence of monitoring data indicates probably also ignorance about PCB poisonings (in particular cutaneous ones) on the part of health practitioners. A national monitoring program of the kind suggested for pesticides would allow not only gathering data on environmental exposure, but also ensuring that imported equipment and articles would not contain PCBs, which some foreign owners might be tempted to dispose of toward countries with weak analytical capacities. The detection of PCBs with field kits does not pose any problem of sophisticated laboratory equipment.

c) UPOPs (Annex C)

Like in the case of PCBs, the CAR does not have any national monitoring data on contamination of humans or other environmental media by dioxins and furans.

2.3.11.2 Socio-economic impact and vulnerable groups

a) POPs pesticides (Annexes A and B)

As mentioned above in this sub-chapter, the use of POPs pesticides is not yet legally banned in the CAR. In agriculture, the cash crop sector as the principal user of pesticides is not any more of concern in this regard. The risk comes essentially from peri-urban truck farming and from small individual farmers, who use pesticides for the treatment of seeds, certain vegetables (cowpea, e.g.), for grain and cereal stocks (cowpea and corn, in particular) or for illegal activities of fishing and hunting. Another area of potential risk is international road

transport through the CAR, a transit country, to or from CEMAC countries. This risk is difficult to apprehend, inasmuch as all these countries of the sub-region are not yet harmonized in regard to pesticide use policies. For the same reasons, the risks of discharge of these substances are in principle not existent, because they are not any longer imported or exported, with the exception of the ambiguous case of DDT.

The only sector which will really be concerned by the application of the law in the framework of the implementation of the Convention is the construction sector because of the use of the aldrin based Xylogyl for wood treatment. It should be envisaged to ban its import, trade and use in short term and to proposed an alternative product.

Other than the construction sector, combating malaria and anti-termite treatments are two other sectors to be considered.

Construction workers and the general public should be trained or informed on environmentally sound anti-termite strategies. There is certainly a need for specific laws and regulations. As to combating malaria, the strategy for reducing the use of POPs pesticides could consist of spreading and upholding the alternative of mosquito nets impregnated with synthetic pyrethroids, as recommended by the current sectoral policy. This will discourage the use of spirals impregnated with unidentified insecticides currently sold in the informal sector.

As these groups are vulnerable, one cannot be objective in absence of epidemiological monitoring data. In any case, the users of Xylogil and the truck farmers are groups to be considered as targets. After all, the entire population is at risk of intoxication by contaminated food products.

b) PCBs (Annex A)

The role of PCBs in a sector as strategic as the energy sector (national security, industry and employment, health, tourism and hotels, etc.) undeniably renders the elimination of these substances very important for the CAR. Meeting the obligations towards the Convention at the deadlines 2025 for PCB liquids and 2028 for contaminated waste depends heavily on financial aid to the developing country Parties in accordance with Article 13.

In terms of exposed social groups, maintenance technicians for electrical equipment are an important risk group. The second risk group consists of people who cannibalize the electrical transformers sold by their owners, the small craftspeople who work the metals extracted from the carcasses and the users of used transformer oil. This second group is very diffuse and, unfortunately, will be hard to identify for awareness raising.

c) UPOPs (Annex C)

The problem of reducing UPOPs emissions in the CAR touches many sector, such as management of municipal, industrial and medical waste; road transport, production of electrical energy; brush fires.

The application of BAT and BEP as recommended by the Convention for reduction purposes will implicate several stakeholders and require substantial financial resources. The Convention's financial assistance is one source of financing, but bilateral cooperation should be able to open opportunities, particularly because this question also concerns public hygiene and the population's health.

Today available knowledge allows identifying fetuses and infants as risk groups, but no information is available in the CAR on this question.

2.3.12 Evaluation and registration system for chemical products already on the market

No specific Central African regulation exists yet for industrial products as listed in the Convention. However, the CAR has an approbation committee for pesticides called Committee on Phytopharmaceutical Products.

In every instance the authorization for experimenting, the tentative authorization for sale and the agreement are granted by edict of the Ministry of Agriculture and Animal Husbandry, after hearing the opinion of the Committee on Phytopharmaceutical Products.

The eventual adoption of the Globally Harmonized System of Classification and Labeling of Chemicals (GHS) and of the revised FAO Code, and the reinforcement of capacities of the controlling organs at the country's entry points (service for dangerous merchandise at the river port of Bangui, customs service, etc.) are indispensable in the national monitoring framework for POPs. It will be indeed fundamental to make sure that "masked" POPs are not imported as components of different articles and consumer goods.

2.3.13 Evaluation and registration system for new chemical products

The CAR does not have such system and for the time being it is not a priority for the country in its current stage of industrial development. An integrated analysis of national priority questions and action plans suggested by the guidelines for drafting a NIP should allow achieving all required national activities for the implementation of the Convention in the CAR.

The ratification of the POPs Convention and the perspectives opened by its implementation constitute a real and great opportunity for the CAR for integrating the important question of chemical safety, a major component of environmental health, into its strategy for the reduction of poverty and protection of public health.

Starting by improving the national practices of POPs management, the CAR will set valuable milestones for eventually realizing an integrated management policy for chemical substances and dangerous waste, which conforms to the international recommendations of Action 21.

3. STRATEGY ELEMENTS AND ACTION PLANS OF THE NIP

3.1. Declaration of Intent of the Government

The Government of the Central African Republic (CAR),

Referring to the Central African Constitution of 27 December 2004, which stipulates in its Preamble that *"only the strict and transparent management of the public cause and the environment can ensure a harmonious, sound and sustainable development"*, and whose Article 9 disposes that *"The Central African Republic guarantees each citizen the right to work, to a sane environment…"*,

Considering the Framework Law of Environment validated by the stakeholders on 19 November 2006 and in the process of adoption by the Parliament and the Environmental Code in elaboration,

Recognizing that persistent organic pollutants are toxic, degrade with difficulty, accumulate in living organisms and in natural media and are propagated by air, water and migratory species across international borders and deposed far from the sites of their origin, in terrestrial and aquatic ecosystems,

Conscious of the dangers to the Central African population exposed to persistent organic pollutants, in particular to exposed women and through them to future generations,

Concerned to respond to its engagements taken in the framework of Action 21 in its chapters 6, 9, and 19, which demand from governments to:

i. *Implement programs for combating all forms of air pollution (…); monitor the distribution and use of pesticides in a manner to limit health risks;*

ii. *Incite human collectives to elaborate and utilize more effective and less pollutant forms of energy; encourage less pollutant means of transportation;*

iii. *Limit or prohibit toxic substances with persistent impact or bioaccumulative properties, as well as products whose use cannot be effectively controlled; provide the public with information on the chemical risks in the language spoken by the users;*

Concerned to promote sustainable development of its population through the implementation of its economic and social development policy, as defined in the Interim Strategy Document for Poverty Reduction (Interim DSRP),

Preoccupied to integrate into this policy the Millennium Development Goals, to which the CAR has subscribed, in particular goals 4, 5, 6, 7, and 8, which are aimed at:

i. *Reducing infant mortality;*

ii. *Improving maternal and infant health;*

iii. *Combating HIV AIDS, malaria and other diseases;*

iv. *Ensuring a sustainable environment;*

v. Implementing a global development partnership.

Being fully aware of its engagements towards international conventions in regard to chemical products management, to which it has subscribed or prepares to subscribe, in particular the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal; the Bamako Convention on the Ban on the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa; the Rotterdam Convention on the Prior Informed Consent (PIC) Procedure for Certain Hazardous Chemicals and Pesticides in International Trade; the UN Framework Convention on Climate Change; the Vienna Convention for the Protection of the Ozone Layer; the Montreal Protocol on Substances that Deplete the Ozone Layer; and the Stockholm Convention on Persistent Organic Pollutants,

Considering the Environmental Action Plan of NEPAD (New Partnership for Africa's Development), whose global objective is "to improve the environmental conditions in Africa for contributing to achieving economic growth and poverty eradication; developing Africa's capacities for applying international agreements and facing the environmental challenges in Africa in the global context of the implementation of NEPAD",

Fully subscribing to the Declaration of Dubai, to the Global Political Strategy and to the Global Action Plan of the Strategic Approach to International Chemicals Management (SAICM), adopted in February 2006,

Resolved to take measures for the prevention of adverse effects of persistent organic pollutants at all stages of their life cycle,

Reaffirms its firm determination, through the formal endorsement and the implementation of the present NIP, to honor its engagements towards the Stockholm Convention, which it signed on the date of 9 May 2002 and the ratification of which is underway.

To this end, the Government will commit itself to setting up an institutional, legal and technical environment favorable to environmentally sound POPs management and in respect of other obligations towards the Convention. Promoting the consideration of the dimension of chemical safety in the strategy for combating poverty and for sustainable development, and offering direct synergies with other international engagements to which the CAR has already subscribed in terms of environment, the Stockholm Convention is a precious link in the plan which the Government is progressively implementing for the preservation of environmental health.

In this implementation of the NIP, the Environmental Code of the CAR and the international key principles for chemical products management (precaution, prevention, polluter pays, participation…) constitute the base and references for directing the activities.

However, the Government, conscious of the fact that the reduction or elimination of POPs will not only permit to protect human health and environment against adverse effects, but also offer a veritable opportunity to set the cornerstone of a really integrated national policy for the management of dangerous chemical products in general, reaffirms in the present Declaration of Intent its will to work resolutely on the effective and efficient implementation of the NIP. To that end, it will engage in mobilizing accessible resources from the national plan by all kinds of appropriate measures (tax deductions, tax reductions, etc.)

Besides, it will take every effort to access external resources under bilateral and multilateral cooperation and will take all measures, conforming to the principles of the Stockholm Convention, for being eligible for technical and financial assistance according to its Articles 12 and 13 in order to progressively achieve environmentally sound POPs management from now till 2025, which safeguards human health and environment.

3.2. Implementation Strategy

The implementation strategy for the Convention aims at reduction/elimination of sources and emissions of POPs and is based on:

i. *Making the appropriate institutional arrangements*

ii. *Putting into place a coherent legal and regulatory framework*

iii. *Sharing responsibility with the stakeholders*

iv. *Mobilizing financial resources for the realization of projects*

v. *Awareness raising, education and communication*

vi. *Reinforcement of human and technical capacities*

3.2.1 Strategic objectives

The global strategic objective is to contribute to combating poverty and to the promotion of sustainable development through progressive promotion of consideration of chemical safety in the strategies and action plans for the fight against poverty and for sustainable development, in order to bring about fitting solutions against the threats of POPs to human health and environment.

The specific objective is to reduce from now to 2025 the sources and emissions of POPs in order to protect human health and environment against the adverse effects of these substances.

To that end:

i. *Legislative and regulatory texts will be updated and harmonized with the Stockholm Convention;*

ii. *Information, education and communication will have priority;*

iii. *Training will be organized;*

iv. *The NIP will be published;*

v. *The civil society and the private sector will be stakeholders in the implementation of the NIP;*

vi. *The synergy between conventions related to chemical products management, to which the CAR has subscribed, will be developed;*

vii. The coordination of different activities in regard to chemical products management will be ensured;

viii. The regular periodic production of national reports on POPs will be a major concern;

ix. POPs inventories and evaluations will be carried out and updated regularly and periodically;

3.2.2 Guiding principles of the strategy

The guiding principles for this strategy are:

i. Promotion of good governance;

ii. Sustainable management of natural resources;

iii. Consideration of sub-regional integration;

iv. Promotion of human safety through environmental and sanitary safety;

v. Refocusing the state's role and responsibility sharing with the civil society, local cooperatives and private operators.

3.2.2.1 Promotion of good governance

The Government of the CAR considers good governance as one of the pillars of the policy for relaunching economic growth and the fight against poverty. In fact, the Interim Strategy Document for Poverty reduction (Interim DSRP), which is currently being finalized, deems that one of the strategies for finding solutions to numerous obstacles to sustainable development in the CAR consists of promoting peace and good governance at all levels.

In the particular implementation framework of the Stockholm Convention good governance will be promoted by the following actions:

- Reinforcement of institutional capacities for POPs management;
- Awareness raising, information, education and training of all stakeholders in order to win their cooperation in the implementation of the NIP;
- Enacting a legal and regulatory framework which protects human health and environment against the adverse effects of POPs.

3.2.2.2 Sustainable management of natural resources

The Government is conscious that one of the indispensable conditions for the realization of sustainable economic development is the rationalization of natural resources management and the protection of the environment, and that certain policies, which were originally designed to support economic activities or to augment the production, can degrade the national resources and the environmental conditions.

Conforming to the Government's policy, the implementation of the NIP has to be based on the quest for equilibrium between the requirement to satisfy the current needs of the population and the requirement to preserve the natural resources for future generations.

3.2.2.3 Consideration of sub-regional integration

The CAR is party to a certain number of sub-regional organizations, whose objectives are aimed at the promotion of commercial exchange between the member states. These are in particular the Common Market of Eastern and Southern Africa (COMESA), the Economic Community of the Great Lakes Countries (CEPGL), the Economic Community of Central African States (CEEAC), and the Economic and Monetary Community of Central Africa (CEMAC). All these organizations form priority frameworks for harmonization of policies, strategies and actions in the combat against the production and commercialization of POPs or products containing them. This harmonization should also pertain to industrial production standards, as well as standards for commercial products permitted in the sub-region and especially products that may contain POPs.

3.2.2.4 Promotion of human safety through environmental and sanitary safety

The Government's political will to protect human and environmental safety is manifested in signing of international conventions related to chemical products management, among other things. The obligations toward these conventions, in particular to the Stockholm Convention on POPs, are being integrated into the Environmental Code in elaboration.

3.2.2.5 Refocusing of the state's role and responsibility sharing with the civil society, local cooperatives and private operators

The Government's policy for economic relaunch and combating poverty encourages the promotion of decentralization and participation. The promotion of participation of the private sector will be reinforced by the dialog with the public sector, so that the latter one engages actively in sound management of chemical products, including POPs. According to this policy, development projects should be identified and elaborated with participation of all interested partners and actors, in particular the beneficiary populations, the collectives, the local associations and NGOs. This fashion of conceiving the development will favor the appropriation by the population at the base of the projects initiated in their favor (Interim DSRP). The population will also be involved in the process of follow-up evaluation of the impact of these projects.

With regard to combating POPs, a partnership between the state and the stakeholders (industrialists, farmers, traders, local collectives, associations and NGOs) should be established and reinforced. A system of co-financing of certain projects of the NIP ought to be envisaged. The Polluter Pays Principle should be enforced to raise the conscience about adverse POPs effects on health and environment.

3.2.3 Strategic axes

Four strategic axes for intervention with respect of the implementation of the NIP have been identified in the course of studying national objectives and priorities related to POPs management. These are the following axes:

- Reinforcement of human capacities in POPs management;

- Promotion of monitoring, research and development and analysis of POPs;
- Adaptation of infrastructures to sound POPs management;
- Adaptation of legislative and regulatory texts to the obligations of the Stockholm convention.

3.2.4 Strategies

3.2.4.1 Inventory of stocks, used articles and waste to be considered

The inventory of stocks, used articles and waste to be considered involves several partners, the most important of which are: the ministries charged with environment, health, agriculture and animal husbandry, energy, crafts, industry and commerce, transport, the public and private societies involved in importation, use and production of substances listed in Annexes A, B and C.

The strategies to adopt for finding reliable data in the determination or volume reduction of emissions of stocks of pesticides, DDT, PCBs and HCB (substances listed in Annexes A, B and C) as well as the volumes of waste containing these products, comprises in particular:

- Awareness raising of all partners on adverse effects of POPs on human health and environment;
- Reinforcement of capacities of all partners;
- Implementation of a strategy for communication between all partners;
- Participation of all partners in the compiling of the inventories, their updating and evaluation.

Awareness raising of all partners is motivated by the fact that the POPs question is new in the CAR and it is necessary that all partners involved understand well the adverse effects of POPs on health and environment.

Reinforcing the capacities of the partners appears equally as a required step for the success of the inventories and evaluations of POPs in the CAR. In fact, it is necessary to ensure that all interested parties have sufficient knowledge on POP by specific training and appropriate provision of standardized forms for the collection of statistical data, according to the precision demanded by the Convention.

Implementing a strategy for environmental communication will allow the exchange of data and information, which enhances good execution of the inventories and access to practical alternatives aimed at POPs mitigation.

Participation of all partners at all stages of the inventory of stocks, articles in circulation and waste to be considered will allow better appropriation of the operation by the partners.

3.2.4.2 Strategy for information exchange

The strategy for information exchange will be based on:

- Installation of a national network of chemical information via Internet (REIC) on POPs. This will require the reinforcement of the partners' capacities for using and managing the website. It has to be ensured that a budget for the operation of the REIC is available.

- Use of other classical means of information exchange, such as magazines and periodicals will be envisaged.

- Development of information, education and communication activities related to POPs with consideration of the concerns of the different public and private sectors.

3.2.4.3 Research and development strategy

The research and development strategy is based on:

- Reinforcement of national analytical capacities;

- Installation of a system for observation and monitoring of the impact of chemical products on human health and environment;

- Mobilization of technical and financial assistance;

- Sub-regional and regional cooperation;

- Identification, evaluation and promotion of POPs alternatives;

- Promotion of cleaner production technologies corresponding to BAT and BEP.

Reinforcing national analytical capacities is fundamental. In fact, the CAR does not have an appropriate laboratory for POPs analysis.

Installing a system for observation and monitoring of the impact of chemical products on human health and environment will allow to quickly identify the presence of POPs in living organisms exposed to POPs and in the environment and to take preventive measures.

Mobilizing technical and financial assistance will be necessary for establishing a reference laboratory and for training national experts in POPs analysis.

Sub-regional and regional cooperation favor the exchange of information and data on production, trade and use of substances listed in Annexes A and B, but also on substitution solutions. It also allows reducing double effort.

Identifying, evaluating and promoting alternatives will be fundamental activities of the national research and development program, whose main objective is the identification and exploitation of available local natural resources and of endogenous technologies and knowledge.

For promoting cleaner production technologies the national guide on available better techniques and better environmental practices will be a valuable reference document for assistance and advice for the reduction of UPOPs. The CAR needs technical assistance in this area in order to train competent national staff in the priority domains identified in the action plan on UPOPs.

3.3. Action Plans, Strategies, Activities

Analyzing the national priorities and major obligations of the Convention on measures for reduction-elimination of POPs emissions (Articles 3, 5, 6, 9, 10, 11) has allowed to identify six action plans. These were prioritized in a multidisciplinary brainstorming session as shown below.

1) Information, Education and Communication (IEC)
2) Information Exchange
3) Dioxins and Furans Management
4) Pesticides Management
5) PCB Management
6) Contaminated Sites Management

This sub-chapter is dedicated to exposing the problems and describing the other action plan elements in accordance with the UNITAR recommendations for action plan drafting in the framework of the NIP.

3.3.1 Information, education and communication

3.3.1.1 Problematic

The initial national POPs inventories (reference year 2004) show that the Central African population is exposed in its entirety in one or the other way to the negative effects of these substances (drinking water, air, food products, etc.)

In fact, some are still used in electrical equipment (PCBs in transformers and capacitors) and for construction wood protection (aldrin in Xylogyl). Others are unintentionally produced during the combustion of biomass (brush fires, cooking with wood or charcoal, burning of domestic waste), incineration of hospital waste, use of leaded gasoline in vehicles, different artisanal activities (tile or brick manufacturing, etc.)

Other POPs were imported in the past (DDT, aldrin, dieldrin, etc.) for use in agriculture or healthcare and are left over till today as badly managed obsolete stocks and residues, which can dangerously contaminate soil, water and food products. Therefore, the threats and dangers of POPs for health and environment are not only a major preoccupation in the CAR but constitute an environmental and sanitary problem, which is indeed new for the country.

In addition, the population is not yet aware of the dangers and threats of POPs and the country does not have trained personnel, financial means and appropriate materials for bringing awareness campaigns for proper management of these substances to fruition. Thus, the different components of the population (politicians, decision makers, women, less educated children, workers, scientists, educators, technical and administrative staff) are not yet appropriately informed, educated and aware with regard to POPs, their sources, impacts and danger to health and environment.

This situation compels the CAR to elaborate and implement an action plan for enhancing information, awareness and education of the public on persistent organic pollutants, their effects on health and environment, as well as their substitution, in accordance with Article 10 of the Stockholm Convention.

3.3.1.2 Logical framework

Activity	Implementer	Time Frame	Performance indicator	Source	Prerequisite	Cost in USD
Development objective: Increase progressively the level of knowledge and awareness for POPs and other chemical products among the general public, professionals and decision makers by elaborating and strictly implementing a chemical safety policy						
Immediate objective 1: Install a national IEC program, which is functional from 2008 on under the responsibility of the Ministry of Water, Forests, Hunting and fishing, charged with the Environment						
Expected result: National IEC program operational as of 2008						
1.1. Installation of a technical IEC committee and operational means	Coordinator and national experts	2008	• Committee creation edict • Recruitment papers • Delivery notes	Coordinator's archives	Availability of resources	1,752,000
1.2. Identification of awareness targets	Coordinator and technical IEC committee	2008	• Number of identified persons	Coordinator's archives	Availability of financing	4,000
1.3. Elaboration of awareness topics by groups	Coordinator and stakeholders	2008	• Number of topics and evaluation report	Coordinator's archives	Availability of financing	12,400
1.4. Training of trainers	Coordinator and experts	2008	• Workshop report	Coordinator's archives	Availability of financing	9,500
1.5. Training of presenters	Coordinator, technical IEC committee and stakeholders		• Evaluation and training report	Coordinator's archives	Availability of financing	16,400
Immediate Objective 2: Change progressively the different actors' behavior in regard to negative effects of POPs and other chemical products						
Expected result: Consciousness of politicians, decision makers, professionals and the general public about POPs and other chemical products by 2008						

Activity	Implementer	Time Frame	Performance indicator	Source	Prerequisite	Cost in USD
2.1. Organization of IEC campaigns	Coordinator Coordinator and committees	2007 2008	• Activity reports • Workshop and campaign reports	Coordinator's archives Coordinator's archives	Political will and stability Availability of financing	144,800
Immediate Objective 3: Adapt and perpetuate the IEC programs by 2010 under the responsibility of the Ministry of Water, Forests, Hunting and fishing, charged with the Environment						
Expected result: Continual training programs are elaborated and applied by 2010						
3.1. Creating/promoting a mechanism for dissemination, education and training on POPs and other chemical products	Coordinator	2008 till 2010	• Mission reports	Coordinator's archives	Availability of financing	201,680
3.2. Establishment of watch cells for POPs management in institutions and enterprises	Coordinator and involved institutions and enterprises	From 2008 on	• Number of cells established	Coordinator's report	Will of partners	21,600
3.3. Including modules on POPs and other chemical products in high school and college curricula	Coordinator, Ministry of National Education and other parties (UNESCO, e.g.)	From 2008 on	• Effective curricula at the institutions of the Ministry of National Education	Coordinator's archives and Ministry of National Education archives	Political will	2,900
3.4. Training of special staff and workers on POPs and related items	Coordinator and partners	From 2008 on	• Number of persons trained	Coordinator's activity report	Availability of financing	8,000
3.5. Creation of a national monitoring network for sound management of POPs and other chemicals	Coordinator and partners	From 2008 on	• Evaluation report and report on network activities	Coordinator's archives	Availability of financing	62,880
Total cost						2,236,160
Unforeseen 10%						223,616
Cumulative cost, rounded up						2,460,000

3.3.1.3 Gantt chart of activities

Activities	Year of Implementation																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1.1. Installation of a technical IEC committee and operational means	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
1.2. Identification of awareness targets	■					■					■					■				
1.3. Elaboration of awareness topics by groups	■			■	■	■	■		■		■		■			■	■	■		■
1.4. Training of trainers	■				■	■				■	■				■	■				
1.5. Training of presenters		■		■		■		■		■		■		■		■		■		
2.1. Organization of IEC campaigns	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
3.1. Creating and promoting a mechanism for dissemination, education and training on POPs and other chemical products		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
3.2. Establishment of watch cells for POPs management in institutions and enterprises		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
3.3. Including modules on POPs and other chemical products in high school and college curricula		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
3.4. Training of special staff and workers on POPs and related items		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
3.5. Creation of a national monitoring network for sound management of POPs and other chemicals	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

3.3.2 Information exchange

3.3.2.1 Problematic

Information exchange is surely at the crossroads of all actions/activities/measures, which could be envisaged for making the NIP effective.

According to Article 9 of the Convention a national system must be operational to assure the flow of information between the national stakeholders on the one hand and between the country and the Secretariat of the Convention on the other hand. In fact, in order to achieve sound management of the sources and negative impacts of POPs and reduce them significantly, if not completely eliminate, the provision of pertinent and regularly updated information of the stakeholders on methods, materials, techniques, technologies and alternative products is indispensable.

Besides, the implementation of the dispositions of the Articles 3 to 16, which contain the main obligations of the Convention, necessitates a national system for information exchange. The analysis of the situation, which was carried out in 2004, by assessing POPs inventories and other issues, has shown that the bad management of POPs in the CAR is due to a nearly complete ignorance about these substances for lack of information. It is clear that producing, collecting, formatting, updating and disseminating this information cannot be done without a rationally planned approach from the beginning of the implementation process on.

The present action plan on information exchange is drafted in this spirit with objectives and activities aimed at making it the cornerstone of the implementation of the Convention.

3.3.2.2 Logical framework

Activity	Implementer	Time Frame	Performance indicator	Source	Prerequisite	Cost in USD
Development objective: Install an operational information exchange program by 2008 under the responsibility of the Ministry of Water, Forests, Hunting and fishing, charged with the Environment						
Immediate objective 1: Reinforce the capacities of the Coordination Unit for Implementation and the Implementation Supervising Committee by 2008 under the responsibility of the Ministry charged with the Environment						
Expected result: National IEC program operational as of 2008						
1.1. Reinforcing the capacities of the coordination (qualified personnel for the Management Unit) and their functional means	POPs Coordinator	2008	• Training report • Number of identified and trained persons	Training report	Availability of financing	366,640
1.2. Internet training for the Steering Committee Members	POPs Coordinator	2008	• Number of identified and trained persons	Training report	Training material	10,000
1.3. Office renovation	Ministry charged with the Environment and POPs Coordinator	2008	• Office available • Acceptance report	Attribution text Archives		18,000
1.4. Procurement of equipment	POPs Coordinator	3 every 5 years	• Vehicles purchased and available	Invoices and accounting documents	Availability of financing	68,550
	POPs Coordinator	2008	• Material available	Invoices and accounting documents	Availability of financing	

Activity	Implementer	Time Frame	Performance indicator	Source	Prerequisite	Cost in USD
Immediate Objective 2: Install an information exchange network on chemical products over the Internet by 2008 under the responsibility of the Ministry charged with the Environment						
Expected result: Information exchange network via Internet is created and functional						
2.1. Creating a website	POPs Coordinator Management Unit	2008	• Information available from the site	Internet address available	Availability of appropriate technology	60,800
	Management Unit	Con-tinued	• Invoices	Invoices	Availability of financing	
Total cost						523,990
Unforeseen 10%						52,399
Cumulative cost						576,389

3.3.2.3 Gantt chart of activities

Activities	Year of Implementation																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1.1. Recruitment and training of the management unit staff																				
1.1.1. Training of a website administrator	■										■									
1.1.2. Training of 2 assistants for the administrator	■																			
1.2. Internet Training for Steering Committee members	■																			
1.3. Office renovation																				
1.4. Procurement of equipment																				
1.4.1. Procurement of a 2 wheel vehicle	■					■					■					■				
1.4.2. Procurement of office furniture	■																			
1.4.3. Procurement of office supplies and consumables	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
1.4.4. Procurement of computing supplies							■								■					
2.1. Creation of a website																				
2.1.1. Installation and connection	■																			
2.1.2. Payment of provider fees	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
2.2. Provision of POPs information to the stakeholders																				
2.2.1. Creation of a database	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

3.3.3 Management of dioxin and furan sources

3.3.3.1 Problematic

The Stockholm Convention, in its Article 5, lists minimal measures, which the Parties have to take for minimizing UPOPs emission and, if possible, eliminate them over time. To that goal the Parties have to encourage or demand at the latest 4 years after the Convention entered into force with respect to them the use of best available techniques (BAT) and best environmental practices (BEP) for the management of different anthropogenic national activities identified in Parts Ii and III of Annex C (for new sources).

The initial national inventory established in 2004 gives a first impression of such activities in Central Africa. It is known that waste disposal, intentional and unintentional combustion of biomass and the use of fossil fuels are the main emission sources against towards which priority measures should be directed. However, much remains to be done to grasp the real magnitude of the problem, because the culpable activities are not yet characterized regarding the recommended methodology.

In order to accomplish that it is important to have a transparent and reliable national statistical database for the periodical evaluation of the nation UPOPs emissions. In most cases the base data is missing and those which exists satisfies the planning need of the Government but does not fulfill the requirements of precision and reliability of the Convention with respect to reporting the evolution of emissions by updating the national inventories.

It should be noted that the country cannot hope to fulfill successfully it obligations towards the Convention if the relevant formats of all statistical data are not improved to satisfy the Convention's requirements. Besides, the knowledge level of the stakeholders on dioxin sources and their negative effects must be significantly raised to understand the basics of reduction measures. These are important preconditions for planning reduction or elimination measures for emission by employing BAT and BEP.

The current action plan is not only a response of the CAR to the stipulations of Article 5 of the Convention, but also and above all a roadmap that allows the stakeholders to improve their knowledge of different national source categories and health and environmental risks related to them, and to better understand BAT and BEP in order to contribute to a better informed and more responsible choice and application of them.

3.3.3.2 Logical framework

Activity	Implementer	Time Frame	Performance indicator	Source	Prerequisite	Cost in USD
Development objective: Progressive reduction till 2025 of the national contribution of UPOPs emissions from the in the national inventory identified primary sources						
Immediate objective 1: Update the national inventory of substances listed in Annex C every 4 year, starting in 2009 under the responsibility of the Ministry of Water, Forests, Hunting and Fishing, charged with the Environment						
Expected result: Updated national inventory of Annex C substances every 4 years						
1.1. Creating a technical study committee for dioxins and furans	POPs Coordinator	2008	• Creation act with composition of the committee	Archives of the Ministry of the Environment and of the Coordinator	Political will	420,000
1.2. Revision and reproduction of statistical questionnaires	University Ministry charged with the Environment Ministry of Transport	2008	• Questionnaires validated and available	Validation report		4,000
1.3. Training of interviewers	Ministry of Planning Ministry charged with the Environment (Coordinator) National and international experts	2008	• Number of trained interviewers	Training report	Availability of financing	15,000
1.4. Updating dioxin and furan inventories	POPs Coordinator	2009	• Inventory report available	Inventory report		12,000
1.5. Validation of the inventory report	POPs Coordinator	2009	• Validation report	Validation report	Availability of financing	8,000

Activity	Implementer	Time Frame	Performance indicator	Source	Prerequisite	Cost in USD
Immediate Objective 2: Bring the decision makers and the population to adopt BAT and BEP and all other measures for the reduction of dioxins and furans till 2010						
Expected result: Consciousness and adherence of at least 60% of the population by 2010 of good practices for environmentally sound management of dioxins and furans under the responsibility of the Ministry charged with the Environment						
2.1. Elaboration and validation of BAT/BEP topics for awareness raising	POPs Coordinator and national experts	2010	• Topics elaborated and validated	Validation report		10,000
2.2. Production of auxiliary means for awareness raising	National experts	2010	• Auxiliary means available	Coordinator's archives		2,000
2.3. Organization of awareness campaigns	POPs Coordinator	2011	• Number of persons with raised awareness	Campaign reports		25,000
Immediate Objective 3: Establish a program for management of dioxin and furan sources till 2010 under the responsibility of the Ministry charged with the Environment						
Expected result: Operational management program under the responsibility of the Ministry charged with the Environment						
3.1. Training of service providers for waste valorization	POPs Coordinator	2010	• Number of providers trained	Training report	Availability of financing	20,000
3.2. Procurement of equipment and logistical support for the service providers	Coordinator and service providers	2011	• Providers equipped	Procurement and distribution report	Availability of financing	500,000

Activity	Implementer	Time Frame	Performance indicator	Source	Prerequisite	Cost in USD
3.3. Selection of a suitable site for collection, storage and recycling of municipal waste	Coordinator and service providers	2011	• Volume of recycled waste	Coordinator's report		50,000
Immediate Objective 4: Install a study and research program on POPs till 2013 under the responsibility of the Ministry charged with the Environment						
Expected result: National Research Center available						
4.1. Contract negotiation for establishment of a lab and conclusion of the contract	POPs coordinator and national experts	1009 till 2012	• Contract awarded and executed	Coordinator's report		10,000
4.2. Establishment of a POPs research laboratory	Coordinator University Ministry charged with the Environment ICRA	2010 till 2011	• Laboratory established	Coordinator's report	Availability of financing	1,000,000
4.3. Staff training in dioxin and furan research	University National experts	2012 till 2013	• Number of staff trained	Coordinator's report		10,000
4.4. Adequate dioxin and furan research	University ICRA Experts	2014	• Research results available	Activity report		100,000
Total cost						2,186,000
Unforeseen 10%						218,600
Cumulative cost						2,404,600

3.3.3.3 Gantt chart of activities

Activities	Year of Implementation																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1.1. Creating a technical study committee for dioxins and furans	■																			
1.2. Revision and reproduction of statistical questionnaires	■	■																		
1.3. Training of interviewers		■				■					■					■				
1.4. Updating dioxin and furan inventories		■					■					■					■			
1.5. Validation of the inventory report																				
2.1. Elaboration and validation of BAT/BEP topics for awareness raising																				
2.2. Production of auxiliary means for awareness raising			■		■		■		■		■		■		■		■		■	
2.3. Organization of awareness campaigns				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
3.1. Training of service providers for waste valorization			■																	
3.2. Procurement of equipment and logistical support for the service providers				■																
3.3. Selection of a suitable site for collection, storage and recycling of municipal waste				■																
4.1. Contract negotiation for a laboratory			■	■	■															
4.2. Establishment of a POPs research laboratory			■	■																
4.3. Staff training in dioxin and furan research					■	■														
4.4. Adequate dioxin and furan research							■	■	■	■	■	■	■	■	■	■	■	■	■	■

3.3.4 Management of POPs pesticides

3.3.4.1 Problematic

The CAR does not manufacture Annex A pesticides (aldrin, dieldrin, endrin, etc.). However, in the past it imported them officially for agriculture (cash crops, combating locusts), stock farming and healthcare. Today, all these substances are legally banned to be produced, sold and used in the CAR according to the regulation of phytosanitary products.

The last national assessment carried out in 2004 confirmed largely the absence of trade and official use of POPs pesticides. It also showed that past use has resulted in the accumulation of obsolete stocks and other dangerous wastes, which should now be managed in an environmentally sound fashion and in accordance with the Basel Convention.

In Africa the presence of these highly toxic substances is so troubling on the health and environmental level that the international community has resolved to clean the continent of them. It initiated the "African Stockpile Program" under the aegis of the African Union and GEF. The RCA ought to ratify the Basel Convention, the Rotterdam Convention and the Stockholm Convention on POPs in order to be eligible for this project, which will allow it to proceed to the elimination of all POPs pesticides and other obsolete pesticides and conform to its obligations according to Articles 3 and 6 of the Stockholm Convention.

Apart from the obsolete stock, the national assessment has found that the product Xylogyl, which is being imported and used for the treatment of construction wood, contains aldrin. It will be advisable to demand for an initial period a specific exemption until the national needs and affordable effective alternatives to Xylogyl are evaluated.

In addition to Xylogyl use and the present of stocks, wastes and potentially contaminated sited, certain exposition of human health and environment to POPs pesticides could stem from their circulation in the informal sector, where they yet have to be detected, identified and quantified.

The current action plan on Annex A pesticides is intended to implement activities for the total prohibition of POPs pesticides over time, the promotion of safer alternatives, the securing of obsolete stocks and their environmentally sound disposal.

3.3.4.2 Logical framework

Activity	Implementer	Time Frame	Performance indicator	Source	Prerequisite	Cost in USD
Development objective: Progressive reduction and disposal of all POPs pesticides as well as stocks and wastes under the responsibility of the Ministry of Water, Forests, Hunting and Fishing, charged with the Environment						
Immediate objective 1: Elaborate from 2007 on a national legislation and policies for environmentally sound management of POPs and other pesticides and enforce them from 2008 on under the responsibility of the Ministry charged with the Environment						
Expected result: Legislative and regulatory texts available and enforced in the envisage time frame						
1.1. Elaborating legislative and regulatory texts for POPs pesticides management	Ministry charged with the Environment	2007	• Application decree	Archives of the Ministry and of the Coordinator	Political will	
1.2. Reinforcement of capacities for the management of POPs pesticides and other chemicals	Ministry charged with the Environment Coordinator	2007	• Draft legislation prepared	Archives of the Ministry and of the Coordinator	Political will and availability of financing	1,700,000
1.3. Dissemination of information relating to the legislation	Coordinator	2008	• Campaign report	Archives of the Coordinator	Availability of financing	145,000
Immediate Objective 2: Update the national pesticides inventory every 4 years from 2007 on under the responsibility of the Ministry charged with the Environment						
Expected result: Updated national pesticides inventories every 4 years						
2.1. Recruitment and training of staff charged with the inventories	Coordinator	2007	• Recruitment papers and training reports	Coordinator's archives	Availability of financing	10,000
2.2. Updating and validation of the inventory forms	Coordinator	2007	• Training workshop report	Coordinator's archives	Availability of financing	16,000
2.3. Updating of the inventories	Coordinator	2007	• Inventory report	Coordinator's archives	Availability of financing	12,000

Activity	Implementer	Time Frame	Performance indicator	Source	Prerequisite	Cost in USD
2.4. Validation of the inventories	Coordinator	2007	• Validation workshop report	Coordinator's archives	Availability of financing	8,000
Immediate Objective 3: Define instruments for management and follow-up evaluation as of 2007 and apply them for progress evaluation every 5 years under the responsibility of the Ministry charged with the Environment						
Expected result: Sound pesticides management mastered						
3.1. Training of experts	Coordinator	2008	• Training report	Archives	Availability of financing	360,000
3.2. Entering into partnerships with firms, importers and other institutions involved with pesticide management	Ministry charged with the Environment	2008	• Contracts	Archives	Political will	1,000
3.3. Reinforcing the capacities of ICRA for research on POPs substitutes	Coordinator	2010	• Research programs available	Archives	Availability of financing	1,420,000
3.4. Recovery, packaging, labeling, relocation and storage of obsolete pesticides according BEP	Ministry charged with the Environment Coordinator	2008	• Activity report	Archives	Availability of financing	1,220,000
3.5. Disposal contract for obsolete pesticides	Ministry of Interior Ministry charged with the Environment Coordinator	2010	• Contract	Archives	Political will	4,000
3.6. Follow-up evaluation of activities and sites	Ministry charged with the Environment Coordinator	2012	• Activity report	Archives		204,500
Total cost						5,100,500
Unforeseen 10%						510,050
Cumulative cost						5,610,550

3.3.4.3 Gantt chart of activities

Activities	Year of Implementation																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1.1. Elaborating legislative and regulatory text for POPs pesticides management	■																			
1.2. Reinforcement of capacities for the management of POPs pesticides and other chemicals	■																			
1.3. Disseminiation of information regarding the prepared legislation		■		■		■		■		■		■		■		■		■		
2.1. Recruitment and training of staff charged with the inventories	■																			
2.2. Updating and validation of the inventory forms	■																			
2.3. Updating of the inventories	■				■				■				■				■			
2.4. Validation of the inventories	■				■				■				■				■			
3.1. Training of experts	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
3.2. Entering into partnerships with firms, importers and other institutions involved with pesticide management		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
3.3. Reinforcing the capacities of ICRA for research on POPs pesticide substitutes	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
3.4. Recovery, packaging, labeling, relocation and storage of obsolete pesticides according BEP			■																	
3.5. Disposal contract for obsolete pesticides				■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
3.6. Follow-up evaluation of activities and sites			■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

3.3.5 Management of PCBs

3.3.5.1 Problematic

Since the first continental conference for Africa on environmentally sound management of undesirable waste and its prevention of the Parties to the Basel Convention in 2001 in Rabat, Morocco, the sound management of PCB containing fluids has been part of the priorities in NEPAD's environmental action plan.

The Stockholm Convention on POPs, which the CAR has signed, classifies PCBs as intentionally produced and used POPs in Annex A Part II and in Articles 3 and 6. In particular, it obligates the parties to take appropriate measures to reduce or eliminate PCB emission resulting from their production/use or emanating from their stocks or wastes.

The initial national inventory established in 2004 shows that the electrical power sector, which is strategic for the country, still uses numerous PCB containing equipment. The current absence of a management plan for these equipments leads either to their abandonment after the end of their life cycle or to their sale to third parties, who are not warned about inappropriate use of PCBs and their waste. Thus the PCBs serve as raw materials for cosmetic products or enter directly into human nutrition as frying oil, which leads to increased exposure of human health and environment to their damaging impacts, which the population and even certain professionals completely ignore.

Engaged by the Rabat Declaration and having signed the Stockholm Convention, the CAR is obligated to assign high priority to environmentally sound PCB management by taking appropriate measures. However, the country does not yet have the regulatory, institutional and technical frameworks, nor the human and material resources required, for the management of PCBs and their waste. For the CAR, PCB management cannot only be envisaged realistically in a concerted regional/sub-regional effort, starting with a consensual national action plan, which will allow the country to progressively stop using PCB containing equipment and achieve safe management of the wastes.

The present action plan has been elaborated based on the national inventory in order to guarantee the observation of obligations towards the Convention concerning use of electrical equipment containing PCBs and management of their waste.

3.3.5.2 Logical framework

Activity	Implementer	Time Frame	Performance indicator	Source	Prerequisite	Cost in USD
Development objective: Progressively phasing out and by 2025 prohibit all use of electrical PCB containing equipment, and acquire before 2028 an operational national infrastructure for environmentally sound management of PCB stocks and wastes under the control of the Ministry of Energy						
Immediate objective 1: Train national experts for PCB management						
Expected result: National experts trained and on duty						
1.1. Recruiting a team of national experts charged with PCB related activities	Coordinator University	2008	• Number of experts recruited	Coordinator's report		20,000
1.2. Training of the national experts	Coordinator International experts	2008	• Training report	Archives of the Coordinator	Availability of financing	20,000
1.3. Updating of PCB inventories and identification of operators	Coordinator	2008	• Inventory report	Archives of the Coordinator	Availability of financing	300,000
Immediate Objective 2: Provide by 2008 a secured storage facility for PCBs and PCB contaminated electrical equipment as well as PCB contaminated waste under the responsibility of the Ministry of Energy						
Expected result: PCBs and PCB contaminated electrical equipment and waste securely stored						
2.1. Collection and storage of old transformers	Coordinator Companies Ministry of Energy National Experts	2009	• Number of transformers collected and stored	Coordinator's report		300,000
2.2. Collection and examination of transformers, PCBs and accessories	National experts	2009	• Activity report	Coordinator's archives		200,000
2.3. Remediation of PCB contaminated sites	Coordinator	2010	• Activity report	Coordinator's archives		1,000,000

Activity	Implementer	Time Frame	Performance indicator	Source	Prerequisite	Cost in USD
2.4. Check-up of operators' staff						500,000
2.5. Follow-up monitoring of sound management	Coordinator	2010	• Activity report	Coordinator's archives		500,000
Total cost						2,840,000
Unforeseen 10%						284,000
Cumulative cost						3,124,000

3.3.5.3 Grant chart of activities

Activities	Year of Implementation																			
	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20
1.1. Recruiting a team of national experts charged with PCB related activities																				
1.2. Training of the national experts	■	■	■	■																
1.3. Updating of PCB inventories and identification of operators	■				■					■					■					
2.1. Collection and storage of old transformers		■	■	■	■	■	■	■	■	■	■	■	■	■	■					
2.2. Conditioning of PCBs in vats according BAT/BEP and recycling of equipment carcasses	■	■	■	■																
2.3. Remediation of PCB contaminated sites																				
2.4. Identification of transformers in service and of staff in contact with them	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
2.5. Periodical follow-up on transformers in order to decommission the damaged ones and store them securely	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
2.6. For transformers in service, conditioning of PCBs in case of damages and sealing them hermetically in vats according to BEP	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	
2.7. Decontamination and recycling of carcasses, disposal of PCB contaminated transformers by 2003	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

3.3.6 Management of POPs contaminated sites

3.3.6.1 Problematic

Sites potentially contaminated by POPs pesticides, their waste or by PCBs were identified as "Hot Spots" in category 10 of the UPOPs inventory according to the UNEP Toolkit. The inventory established in 2004 shows that the most problematic sites are the disused pesticide storage sites in Bangui and in the cash crop zones (cotton, coffee, tobacco). Their identification is not complete and their evaluation, prioritization, securing, and eventual remediation are primary concerns.

All contaminated sites constitute possible sources of pollution of surface water, groundwater, air, and food products, thus threatening human health and environment. However, these risks have not yet been understood in their full severity because of constraints linked to: low awareness for POPs dangers; lack of personnel trained in POPs management (ecotoxicological and toxicological); lack of experts for evaluation and analysis of contaminated sites; lack of a laboratory equipped and capable for determining contamination in soil, water, air, and food products.

In Article 6 the Convention obligates the Parties to implement strategies for identification, evaluation and management of POPs contaminated sites. Besides, it recommends that if sites are eventually remediated, this should be done in an environmentally sound manner.

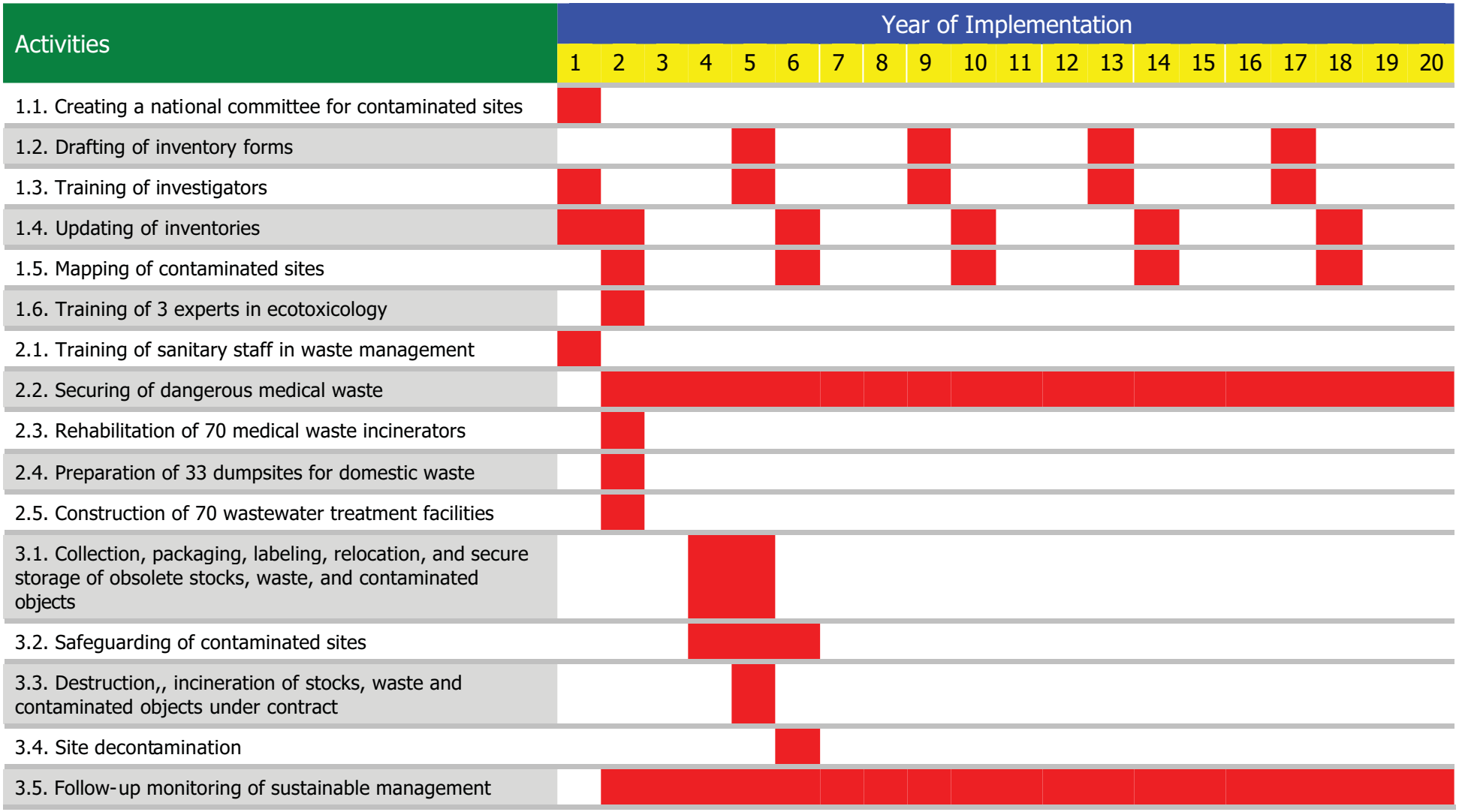
3.3.6.2 Logical framework

Activity	Implementer	Time Frame	Performance indicator	Source	Prerequisite	Cost in USD
Development objective: Reduce and eliminate from now on till 2015 the risks of exposure to POPs and other dangerous chemical product at contaminated sites under the responsibility of the Ministry charged with the Environment						
Immediate objective 1: Improve identification and characterization of contaminated sites till 2008 under the responsibility of the Ministry charged with the Environment						
Expected result: Updated national inventory of contaminated sites						
1.1. Creating a national committee for contaminated sites	Ministry charged with the Environment Coordinator University	2007	• Committee operational	Creation edict	Political will	100
1.2. Drafting of inventory forms	Coordinator	2007	• Forms drafted	Archives of the Coordinator	Availability of financing	2,000
1.3. Training of investigators	Coordinator	2007	• Number of investigators trained	Archives of the Coordinator	Availability of financing	1,250
1.4. Updating of inventories	Coordinator	2008	• Inventory report	Archives of the Ministry and the Coordinator	Availability of financing	5,000
1.5. Mapping of contaminated sites	Ministry charged with the Environment	2008	• Maps available	Archives of the Coordinator	Availability of financing	34,180
1.6. Training of 3 experts in ecotoxicology	Ministry charged with the Environment International experts	2008	• Experts trained	Training report	Availability of financing	45,000

Activity	Implementer	Time Frame	Performance indicator	Source	Prerequisite	Cost in USD
Immediate Objective 2: Develop progressively a national capacity for management of hospital waste and municipal waste under the responsibility of the Ministry of Health						
Expected result: National capacity for medical and municipal waste management established						
2.1. Training of sanitary staff in waste management	Ministry of Health Coordinator	2007	• Number of staff trained	Training report	Availability of financing	100,000
2.2. Securing of dangerous medical waste	Ministry of Health	2008	• Waste quantity secured	Activity report Ministry of Health		175,600
2.3. Rehabilitation of 70 medical waste incinerators	Ministry of Health	2008	• 70 incinerators rehabilitated	Archives	Availability of financing	620,500
2.4. Preparation of 33 dumpsites for domestic waste	Ministry of the Interior	2008	• Number of dumpsites prepared	Archives	Political will and availability of financing	60,000
2.5. Construction of 70 wastewater treatment facilities	Ministry of Health	2008	• Number of treatment facilities built	Archives	Availability of financing	115,700
Immediate Objective 3: Rehabilitate progressively all sites contaminated with POPs pesticides, PCBs, dioxins and furans, dangerous medical waste and other chemical products under the responsibility of the Ministry charged with the Environment, the Ministry of Health and the Ministry of the Interior						
Expected result: Contaminated sites remediated						
3.1. Collection, packaging, labeling, relocation, and secure storage of obsolete stocks, waste, and contaminated objects	Ministry charged with the Environment Ministry of Health Ministry of the Interior Ministry of agriculture University	2010	• Stocks, waste and contaminated objects securely stored	Ministries" and Coordinator's report	Political will and availability of financing	1,700,000

Activity	Implementer	Time Frame	Performance indicator	Source	Prerequisite	Cost in USD
3.2. Safeguarding of contaminated sites	Ministry charged with the Environment Ministry of Defense	2010	• Number of sites secured	Reports	Political will	500,400
3.3. Destruction, incineration of stocks, waste and contaminated objects under contract	Ministry charged with the Environment Ministry of Health Ministry of Interior	2011	• Quantity of stocks, waste and objects destroyed	Ministries' and Coordinator's archives	Availability of financing and materials	2,185,000
3.4. Site decontamination	Ministry charged with the Environment	2012	• Number of sites decontaminated	Archives	Availability of technical means	800,120
3.5. Follow-up monitoring of sustainable management	Ministry charged with the Environment Coordinator	2008	• Activity reports	Coordinator's archives		375,800
Total cost						6,720,650
Unforeseen 10%						672,065
Cumulative cost						7,392,715

3.3.6.3 Gantt chart of activities



3.4. Mechanisms for Implementation, Performance Evaluation and Revision of the NIP

3.4.1 Institutional implementation mechanism

3.4.1.1 National level

The Ministry charged with the Environment is the primary responsible for the implementation and the follow-up evaluation of action plans included in the NIP. To that end, it must watch continually over:

i. Harmonization between the NIP and laws and regulatory texts;

ii. Harmonization and updating of sectoral policies for continuous consideration of the POPs problem

iii. Orientation of national and sectoral strategies and action plans on national and international concerns regarding POPs management;

iv. Implementation of the NIP by all sectors concerned of the national scene;

v. Periodical production of reports by the implementation coordination, as envisaged by the Convention.

3.4.1.2 Regional level

The Ministry charged with the Environment is represented in the regions by the Regional Directorates. They will be charged with the implementation and follow-up evaluation of the action plans. It will have to watch over:

i. Harmonization and updating of the regional development plan in regard to consideration of the POPs problem;

ii. Orientation of projects and activities on international and regional concerns in terms of POPs management;

iii. Compliance with action plans of the NIP on the part of all regional development actors;

iv. Submittal of a regular periodical report to the coordinator of the implementation of the convention on the state of advancement of the implementation and of the follow/up evaluation of the action plans.

3.4.1.3 Prefectural level

The Ministry charged with the Environment is represented in the prefecture by inspections. These are charged with the implementation and follow-up evaluation of the NIP. Their mission is to watch over:

i. Harmonization between the NIP and development projects and activities of the prefecture;

ii. Information and awareness about the NIP of all development actors at the prefectural level;

iii. Submittal of a regular periodical report to the Regional Directorate.

3.4.1.4 Public and private services concerned

At each of the main public and private services concerned, one person will be designated responsible for corresponding with the Ministry in charge of the Environment, the Regional Directorate, the prefectural inspection, and the coordinator of the implementation of the Convention.

3.4.2 Implementation means

3.4.2.1 Legal instruments

The legislative and regulatory texts will be updated and adapted to the obligations of the Stockholm Convention on POPs;

3.4.2.2 Institutional instruments

A supervision mechanism for the implementation of the Convention and the reports will be installed. A national multisectoral implementation supervising committee will be established, directed by the Cabinet of Environment. Moreover, an executive secretariat of the national committee will be charged with the preparation of the reports to the Convention under the responsibility of the implementation coordinator, nominated by the Government according to Article 9. It will be charged with daily monitoring of the implementation activities with the support of 5 monitoring sub-committees emanating from the national supervising committee. This sub-committees will be charged with the direct follow-up and the pre-validation of the reports on sectoral implementation activities trusted to national consultants and /or international experts. Finally, a mechanism will be put into place for follow-up evaluation with an internal (Central Inspection of the Ministry) and external (experts of the donors, stakeholders, etc.),

3.4.2.3 Financial resources

Since the state budget is not sufficient for the implementation of the NIP, the CAR will call on bilateral, multilateral, regional and sub-regional cooperation and on funds provided by the Convention in order to face up to all obligations of the Parties towards the Convention.

3.4.2.4 Human and technical resources

The country does not yet have sufficient human and technical resources for POPs management. Training internships, special training and different types of technical assistance will be developed and multiplied so that the country will be equipped with qualitatively and quantitatively sufficient human capacities. This is envisaged by the Convention in its Article 12.

3.4.3 Performance evaluation mechanism

3.4.3.1 External follow-up evaluation

The follow-up evaluation of activities and projects financed by donors and executed in the framework of NIP implementation will be ensured by consultants of the donors, representatives of financial partners and the national structure charged with the activity or project.

3.4.3.2 Internal follow-up evaluation

At the national level the key stakeholders in POPs management participate at the follow-up evaluation of activities and projects financed and executed in the framework of the NIP implementation.

A participatory approach will be adopted, so that the principal actors of the public and private sectors of POPs management are implicated in the control of activities and projects and the assessment of performance.

The reports of the internal follow-up evaluations assess the outcomes of the NIP implementation in the socio-economic and environmental areas, the performance of the NIP execution, considering the results and achievements by activity/action plan of the NIP which has been financed.

3.5. Proposals for Capacity Development and Reinforcement

The proposals for the reinforcement of relevant capacities for POPs target four specific objectives.

The priorities identified regarding these specific objectives are listed in the table below.

Table 8: National priorities for POPs management

Specific Objectives	Priorities
Specific objective no. 1	Priority no. 1: Operational national IEC program
Building up qualified human resources for POPs management	Priority no. 2: Organization of informal training sessions
	Priority no. 3: Elaboration and implementation of formal training programs
	Priority no. 4: Training of national expert in GEF policies and procedures
Specific objective no. 2	Priority no. 1: National research, development and monitoring center
Establishing a national program for POPs research, development and monitoring	Priority no. 2: Publication of data and information on POPs
	Priority no. 3: Framework and network for exchange of information and data on POPs research, development and monitoring
Specific objective no. 3	Priority no. 1: Establishment of a national laboratory for POPs and their waste
Adapting infrastructures and institutions for sound POPs management	Priority no. 2: Control of POPs production and their waste
	Priority no. 3: Reduction of dioxin and furan emissions
	Priority no. 4: Protection of environment, work space and workers
	Priority no. 5: Treatment/elimination of obsolete POPs and their waste
Specific objective no. 4	Priority no. 1: Updating and completing legislative and regulatory texts on POPs
Integrating the obligations towards the Stockholm Convention into the national legal framework	Priority no. 2: Publishing the legislative and regulatory texts on POPs
	Priority no. 3: Applying the legislative and regulatory texts on POPs
	Priority no. 4: Introducing national standards for POPs
	Priority no. 5: Adapting the institutions for the obligations towards the Stockholm Convention

3.6. Implementation Schedule

The implementation schedule of the NIP and the performance indicators are indicated in the logical framework tables and Gantt charts of action plans in section 3.3. The implementation covers a time span of 20 years, starting in 2008.

3.7. Partition of Required Resources

Table 9: Required resources

Action Plan	Total Cost	National Resources 5%	Financing required 95%
1. IEC	2,245,560	112,278	2,133,282
Specific objective 1	1,794,300	89,715	1,704,585
Specific objective 2	144,800	7,240	137,560
Specific objective 3	306,460	15,323	291,137
2. Information exchange	523,995	26,200	497,795
Specific objective 1	463,195	23,160	440,035
Specific objective 2	60,800	3,040	57,760
3. UPOPs management	2,179,000	108,950	1,057,350
Specific objective 1	459,000	22,950	436,050
Specific objective 2	37,000	1,850	35,150
Specific objective 3	570,000	28,500	541,500
Specific objective 4	1,113,000	55,650	1,057,350
4. POPs pesticides management	5,100,500	255,025	3,049,025
Specific objective 1	1,845,000	92,250	1,752,750
Specific objective 2	46,000	2,300	43,700
Specific objective 3	3,209,500	160,475	3,049,025
5. PCB management	2,890,000	144,500	2,745,500
Specific objective 1	390,000	19,500	370,500
Specific objective 2	2,500,000	125,000	2,375,000
6. Contaminated sites management	6,720,650	334,032	6,386,678
Specific objective 1	87,530	2,376	85,154
Specific objective 2	1,071,800	53,590	1,018,210
Specific objective 3	5,561,320	278,066	5,283,254
Cumulated Total	19,659,705	980,985	18,678,720
Unforeseen 10%	1,965,970	98,098	1,867,872
General Total	21,625,675	1.079,083	20,546,592

REFERENCES

ANNEXES

Annex 1: Government and Key Stakeholder Approval Documents

Notification of Government Approval

Central African Republic
Unity – Dignity - Work

Ministry of Water, Forests, Hunting and Fishing,
Charged with the Environment

Directorate of Cabinet

Stockholm Convention on Persistent Organic Pollutants (POPs)

His Excellency,

The Minister of Water, Forests, Hunting and Fishing, Charged with the Environment

To the Executive Secretary of the Stockholm Convention on POPs

Maison Internationale de l'Environnement
11-13, Chemin des Anémones
12-19 Châtelaine, Genève, Switzerland

Tel: (41) 229178191
Fax: (41)227973460
Email: ssc@pops.int

Concern:

Endorsement of the National Implementation Plan (NIP) of the Stockholm Convention on Persistent Organic Pollutants (POPs) of the Central African Republic

Mister Executive Secretary,

I have the honor to submit you the National Implementation Plan (NIP) of the Central African Republic, so that it will be on the agenda of the 3rd Conference of Parties, which will be organized in 2007 in Dakar in Senegal.

The above-mentioned document has been prepared by Project UNIDO-GEF/CAF/02/013 Enabling Activities on POPs, a project started on 30 January 2004 for the duration of 24 months, with financial aid of the Global Environment Facility (GEF) and the United Nations Organization for Industrial Development (UNIDO) as executing agency.

A number of staff, representing different ministerial departments, working on the subject of POPs, NGOs, and enterprises have participated in the preparation of the National Implementation Plan of the CAR, in meetings, training courses, restitutions, workshops, etc.

The Committee is composed of representatives of the following ministries, institutions and organizations:

Ministries:

Water, Forests, Hunting and Fishing;

Environment;

Foreign Affairs;

Planning and International Cooperation;

Finance (Customs)

Agriculture and Animal Husbandry;

Mines and Energy;

Transport and Civil Aviation;

National Education (University of Bangui)

Communication;

Public Health and Population;

Town Planning

Enterprises, namely:

The Chamber of Commerce

The Central African Society of Electricity (ENERCA)

The National Water Company (SODECA)

NGOs:

NGO Echelle

NGO MVAD (Mutuality for African Development Volunteers)

The Committee has in total 20 members.

For a large dissemination of activities on Persistent Organic Pollutants (POPs) in the Central African Republic, the Project UNIDO-GEF/CAF/02/013 Enabling Activities on POPs organized several national workshops in Bangui.

- Inception Workshop for the Project Activities

- Training Workshop on Inventory Techniques for Persistent Organic Pollutants (POPs)
- Validation Workshop on Preliminary Inventory and Evaluation Reports on POPs in the CAR
- Validation Workshop for Objectives and Priorities with respect to actions on POPs
- Training Workshop on Action Plans pertinent to the Implementation of the Stockholm Convention on POPs

All members of the National Steering Committee, the women, the responsible personnel of the public and private sectors, the public and private media have taken part in all these meetings.

The preparation of the NIP was conform to the guidelines of UNEP, UNITAR and UNIDO. The Committee members and the hired consultants received training from UNIDO and UNITAR consultants on:

- Preliminary inventories and evaluations of POPs
- Objectives and priorities relevant for POPs
- NIP drafting

It ought to be mentioned that the same consultants have supervised the review of the draft NIP before the consultants who have prepared the document could format it and submit it for validation.

The Government of the Central African Republic would appreciate if the Secretariat of the Stockholm Convention would put the NIP of the CAR, validated at the National Workshop on 30 November 2006, on the agenda of the 3rd Conference of Parties of the Convention.

Hoping that the 3rd Conference of Parties will adopt the NIP of the CAR, I request you, Mister Executive Director, to accept the expression of my distinguished considerations.

The Minister of Water, Forests, Hunting and Fishing,
Charged with the Environment

Signed

Emmanuel BIZOT

Notification of Key Stakeholder Approval

List of Stakeholders

These stakeholders have participated in different workshops or in searches of data on POPs:

Ministries:

- Water, Forests, Hunting and Fishing
- Environment
- Foreign Affairs
- Finance (Customs)
- Agriculture and Animal Husbandry
- Mines and Energy
- Transport and Civil Aviation
- Commerce and Industry
- National Education (university of Bangui)
- Communication
- Public Health and Population
- Town Planning and Lodging
- National Defense
- Interior (Municipality of Bangui)

Enterprises:

- Chamber of Commerce
- ENERCA (Electricity)
- MOCAF (Brewery)
- SOCADETEX (Textiles)
- HUSACA (Edible oils and soap)
- CENTRAPALM (Palm oil)
- PRO-CHIMIE (Fertilizers, disinfectants)
- SOCAP (Paints)
- PETROCA (Petroleum)

NGOs:

- Echelle
- MVAD (Mutuality for African Development Volunteers)
- OCDN (Organization for the Defense of Nature)

- OFCA (Organization of Central African Women)

Research Centers:

- ICRA (Agronomic research
- ACDA (Agricultural development)
- PDSV (Food produce development)
- Central African Truck Farming Project

List of National Steering Committee Members

Names	Institution	Function	Phone
Léopold MBOLI FATRANE	Office of the Prime Minister	Economic Counselor	50.25.67
Gustave DOUNGOUBE	Ministry charged with Environment	Chargé de Mission	50.38.08
Jérôme DEGANE - NAMKONIN	Ministry of Agriculture and Animal Husbandry	Technical Director ORCCPA	03.54.45
Didier NGUELEMBE	Ministry of Mines and Energy	Director of Production	50.49.63
Victorine GAZA	Ministry charged with Environment	POPs Project Coordinator	50.69.49
Pierre SEMBENE	Ministry charged with Environment	POPs Focal Point	
Bertin NGBONGO-BAGNAGA	Ministry of Transport and Civil Aviation	Chief of Air Transport Service	06.48.82
Kevin BONDOMENEPAT	Ministry of Water and Forests	Regional Director N°7	09.55.74
Hubert SOKPOMOU	Ministry of Water and Forests	Chief of Brigade PK9	03.72.51
Martine BANZA	Ministry of Agriculture and Animal Husbandry	Chief of Phytosanitary Service	04.32.85
Roger–Max KOULA	Ministry of Health	Director of the Malaria Combating Program	03.80.76
Daniel DIBOY	Ministry of Commerce and Industry	Chief of SME Service	05.79.63
Wulfrand GUILOH	Ministry of Commerce and Industry	Chief of Industry Service	50.09.94
Samuel BAÏPOULE	Ministry of Planning and International Cooperation	Chief of Infrastructure Service	04.71.52
Samuel RANGBA	Ministry of Foreign Affaires		05.00.72
Wilfrid GONGA	Chamber of Commerce	Chief of Enterprise Service	03.39.81
Raphaël WILIBIZON	Ministry of Finance (Customs)	Chief of Archive Service	04.15.68
Guy DINGOTE-KOSSANI	Ministry of Communication	Chief of Program Service	05.07.87
Mireille BOUKANGA	NGO MVAD	Vice-President	50.42.58
Marie-Christine MBITI	NGO Echelle	Secretary General	40.35.52
Joachim FEÏTOUANA	Ministry of Town Planning	Chief of Cartography Service	04.97.43

Annex 2: Consultations with Stakeholders and the General Public

During the period of elaboration of the NIP, the National Steering Committee and the stakeholders have held the following meetings and workshops:

Phase	Date	Participants	Principal topics	Comments
Phase I Oct – Dec 2003	5 Oct 2003	13	1. Informing the Committee Members on the acquisition of project material 2. Organizing the inception workshop 3. Drafting of the TOR for the inception workshop 4. Drafting of the Minister's speech for the opening of the inception workshop	
	30 Jan 2004	150	1. Inception workshop of Project UNIDO-GEF/CAF/02/013 Enabling Activities on POPs in the CAR, the Stockholm Convention and the Context with other international instruments and initiatives, project action plan for 24 months, guidelines for NIP preparation 2. Outline of the POPs situation in the CAR 3. Discussion	Representatives of several ministerial departments, NGOs, and different companies working on problems with chemical products in general and POPs in particular participated in the inception workshop
Phase II Feb – Dec 2004	25 Mar 2004	15	Meeting for information and preparation of the training workshop on techniques for establishing a preliminary POPs inventory	
	18 May 2005	15	1. TOR for the national consultants 2. Preliminary inventories 3. Assessment of POPs in the CAR	The inventory reports and inventory evaluations were validated in a workshop 26 – 28 January 2005
	16 – 17 Sep 2004	20	Training of Committee Members on POPs inventory techniques	
	25 Sep 2005	16	Results of selections of consultants hired for the inventories and evaluations	

Phase	Date	Participants	Principal topics	Comments
	26 – 28 Dec 2005	80	Validation workshop of preliminary inventories and evaluation of POPs in the CAR • Opening address • Words of welcome • Workshop TOR • Closing remarks	
	22 Apr 2005	17	1. Finalization of the inventory repor 2. Revision of the program for Phase II 3. State of progress of the project activities	
Phase III Jun – Dec 2005	23 Jul 2005	18	1. Preparation of the 3rd phase of the project on objectives and priorities regarding POPs in the CAR 2. State of progress of the project activities for identifying and formulating national priorities and objectives with respect to POPs management in the CAR	
	6 – 7 Dec 2005	45	Validation of objectives and priorities regarding actions on POPs in the CAR	Phase II was delayed to a certain extent, especially in receiving the transfer for different pertinent activities
Feb – Dec 2006	9 Mar 2006	20	1. Restitution of the validation of the Chad's NIP to the Committee members 2. Presentation of the action program for Phase IV 3. Drafting the TOR for NIP preparation	
	30 May 2006		Presentation of a draft NIP on pesticides, PCBs, UPOPs, contaminated sites, information exchange and public education, communication and awareness	After participating in the validation of the Chad NIP and the restitution, the hired consultants had to take steps for presenting a draft NIP for the CAR
	25 – 27 Jul 2006 and 9 – 11 Aug 2006	25	Training of Committee Members and hired consultants on action plans	The Committee members and consultants received two training courses on the drafting of action plans from UNITAR and UNIDO

Phase	Date	Participants	Principal topics	Comments
	25 Sep 2006	20	1. State of progress of NIP preparation 2. Preparation of the validation workshop	
	30 Nov 2006	25	NIP validation	Completion of Phase IV • Finalization of the NIP • Revision of the NIP by an international consultant
Phase V	18 Dec 2006		1. Completion of the Phase IV of the project 2. Envisaging Phase V activities	Phase V activities Public report on different activities of the POPs project in the CAR and the perspectives on 12 Dec 2006 Authorized endorsement of the NIP Sending the NIP to the Secretariat of the Stockholm Convention and COP III in 2007

Annex 3: Documents on Information of Public Representatives

Text of the Stockholm Convention on POPs

At every workshop (national workshop, training session) organized during the preparation of the NIP of the CAR (January 2004 till December 2006) copies of the text of the Convention were distributed to the participants.

Reports on Preliminary Inventories and Evaluations of POPs in the CAR

Every participant of the National Central African Workshop 26 – 28 January 2005 received a copy of the preliminary inventory and evaluation report.

Reports on Objectives and Priorities with regard to actions on POPs in the CAR

Every participant of the Validation Workshop 6 - 7 December 2005 received a copy of the report.

National Implementation Plan

Every participant of the National Validation Workshop of the NIP (30 November 2006) will receive a copy of the NIP.

Annex 4: Elements of Chemical Products Assessment

Central Africa is one of the five sub-regions of Africa, identified in the Action Plan of Lagos, adopted in 1980, as a first step for Inter-African integration. This sub-region consists of two groups: the larger one (CEEAC) has 11 member states: Angola, Burundi, Cameroon, CAR, Chad, Democratic Republic of the Congo, Equatorial Guinea, Gabon, Republic of the Congo, Rwanda, Sao-Tomé and Principe. The CEEAC countries cover 6,666,842 km^2 with a population of about 102 million inhabitants. Within this group a sub-regional economic organism was created, called CEMAC. It has six member states, which wish to manage together certain aspects of their community life for higher efficacy. CEMAC consists of Cameroon, CAR, Chad, Equatorial Guinea and Republic of the Congo.

Agriculture is the principal sector of activity and the economic base of CEMAC. It contributes more than 30% of GDP and employs 70% of the workforce. The CEMAC countries spend over 22 billion XAF for the purchase of pesticides in order to support agricultural production. Unfortunately, these chemical products can constitute a permanent threat to all forms of life and environment, in particular when their management is not well regulated.

The absence of a common approval system creates a problem for the safety of consumers of the sub-region and for conformity with international measures and conventions, such as the FAO's International Plant Protection Convention, the Rotterdam Convention on the Prior Informed Consent (PIC) Procedure for Certain Hazardous Chemicals and Pesticides in International Trade, the Stockholm Convention on Persistent Organic Pollutants, the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal and the Bamako Convention on the Ban on the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa.

The diversity of procedures of analysis and control in this sub-region, where the borders are permeable, presses the Chiefs of States to consider solutions for conformity and approval.

In this framework the Chiefs of States of CEMAC met in Yaoundé, Cameroon, and signed on 8 September 2005 a protocol of understanding on Creating a Committee for Harmonization of Phytosanitary Regulations by the Ministers charged with Agriculture of CEMAC and Sao Tomé and Principe. The Committee for the Approval of Pesticides of Central Africa (CPAR) is composed of experts of the Central African countries, which accept to adhere to the initiative of the Common Regulation, as well as the representatives of CPI, CEEAC and CEMAC, charged with the evaluation and approval of pesticides in the CEMAC zone.

To that end, a National Committee for Pesticides Management (CNGP) was created by Edict no. 085 of 15 January 2006. It is generally responsible for post-approval control, distribution and use of pesticides and for toxicological monitoring of the approved products or products with a Provisional Sales Authorization (APV).

The services charged with pesticides management and the National Committee for Management and Control of Pesticides must supervise the application of the Common Regulation of Pesticides Approval in Central Africa and send status reports to the Minister charged with Agriculture. However, they do not have the capacity to fulfill their mission.

Annex 5: Relevant International and Regional Treaties

Convention or Agreement	Signature	Ratification
Stockholm Convention on Persistent Organic Pollutants	9 May 2002	in progress
Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal		
Rotterdam Convention on the Prior Informed Consent (PIC) Procedure for Certain Hazardous Chemicals and Pesticides in International Trade		
Bamako Convention on the Ban on the Import into Africa and the Control of Transboundary Movement and Management of Hazardous Wastes within Africa		
ILO Convention 170, concerning safety in the use of chemicals at work		
UN Convention to Combat Desertification (UNCCD)	5 September 1994	1 October 1996
United Nations Framework Convention on Climate Change	10 March 1992	13 June 1995
Cartagena Protocol on Biosafety in 2000	24 May 2000	24 May 2000
Convention on Biological Diversity	15 June 1995	13 June 1992
Vienna Convention for the Protection of the Ozone Layer and Montreal Protocol on Substances that Deplete the Ozone Layer		29 March 1993
Central Africa Forests Commission (COMIFAC)	26 July 2006	
The Washington Convention on International Trade in Endangered Species of Wild Fauna and Flora (CITES)		