UNITED NATIONS ENVIRONMENT PROGRAMME
GLOBAL ENVIRONMENT FACILITY (GEF)
PROJECT DOCUMENT

PROJECT IDENTIFICATION

Title of Sub-Programme:	Persistent Organic Pollutants, OP14
Title of Project:	Development of a National Implementation Plan in Brazil as a first step to implement the Stockholm Convention on Persistent Organic Pollutants (POPs)
Project Number:	IMIS: GFL-2328-2760-4989 IMIS: GF/4030-08-02
Geographical Scope:	**Brazil**
Project Executing Agency:	Ministry of the Environment of Brazil (MMA)
Duration of the Project:	2 years Commencing: January 2008 Completion: December 2009

Total Cost of Full Project Phase:

		US$
GEF:	Full Project [1]	**1,263,518**
Co-financing:		
Cash:	Government of Brazil	1,406,455
In-kind:	UNEP	50,000
Subtotal Co-Financing		**1,456,455**
Total Cost of Full Project Phase[2]		**2,719,973**

Project Summary: Brazil ratified the Stockholm Convention on Persistent Organic Pollutants on 16 June 2004. Parties to the Convention must transmit a National Implementation Plan (NIP) to the Conference of Parties. This project is designed to meet that objective and to build the capacity of Brazil to implement its NIP.

Project components and activities will prepare the investigations, and the ranking and action plans necessary for the preparation of a comprehensive NIP, the principal output of the project. Widespread stakeholder engagement throughout the project will ensure appropriate planning with a high degree of country ownership, facilitating national endorsement of the NIP. The project will be implemented by UNEP and executed nationally by the Secretariat for Climate Change and Environmental Quality (SMCQ).

SIGNATURE:

For United Nations Environment Programme:

Signature:

Mr. Theodore N. Kapiga
O-i-C, Corporate Services Section (CSS),
UNEP

Date: 15.4.09

For Brazil:

Signature:

Rudolf de Noronha
Departamento de Qualidade Ambiental na Indústria
DQAM/SMCQ/MMA
Diretor

Date: 26/2/2008

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[1] Cost to the GEF of both the full size project and its PDFB preparation grant amounts to US$1,422,207
[2] Total cost of full size project and PDFB (including co-financing and GEF funds) is US$3,008,662

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LIST OF ACRONYMS/ABBREVIATIONS

ABNT	Associação Brasileira da Normas Técnicas (Brazilian Association of Technical Standards)
ANVISA	Agência Nacional de Vigilância Sanitária (Brazilian Sanitary Surveillance Agency)
BAT	Best Environmental Techniques
BEP	Best Environmental Practices
CETESB	Companhia de Tecnologia de Saneamento Ambiental (Environmental Sanitation Technology Company)
COBEI	Comitê Brasileiro de Eletricidade (Brazilian National Committee for the Electrical Industry)
CONAMA	Conselho Nacional de Meio Ambiente (Brazilian National Environmental Council)
CONASQ	Comissão Nacional de Segurança Química (National Commission for Chemical Safety)
COP	Conference of the Parties
CTA	Comitê Técnico de Assessoramento de Agrotoxicos (Technical Advisory Committee for the Assessment of Pesticides)
DDT	(1,1,1-trichloro-2,2-bis(4-chlorophenyl) ethane)
GEF	Global Environmental Facility
GHS	Globally harmonised system of classification and labelling of chemicals
GT-POPs	Grupo Trabalho POPs (Project Work Team)
HCB	Hexachlorobenzene
HCH	Hexachlorocyclohexane
IBAMA	Instituto Brasileiro do Meio Ambiente e dos Recursos Naturais Renováveis (Brazilian Institute for the Environment and Renewable Natural Resources)
IFCS	Intergovernmental Forum on Chemical Safety
IBGE	Instituto Brasileiro de Geografia e Estadística (Brazilian Institute of National Statistics and Geography
INMETRO	Instituto Nacional de Metrologia (National Metrologic Institute)
MAPA	Ministério da Agricultura, Pecuária e Abasteciemento (Ministry of Agriculture, Livestock and Supply
MCT	Ministério da Ciência e Tecnologia (Ministry of Science and Technology)
MDIC	Ministério do Desenvolvimento, Indústria e Comércio Exterior (Ministry of Development, Industry and External Trade)
ME	Ministério da Educação (Ministry of Education)
MJ	Ministério da Justiça (Ministry of Justice)
MMA	Ministério do Meio Ambiente (Ministry of the Environment)
MME	Ministério de Minas e Energia (Ministry of Mines and Energy)
MRE	Ministério das Relações Exteriores (Ministry of Foreign Affairs)
MS	Ministério da Saúde (Ministry of Health)
MTE	Ministério do Trabalho e Emprego (Minstery of Labour and Employment)
NBR	Norma Brasileira (Brazilian Standard)
NGOs	Non-Governmental Organizations
NIP	National Implementation Plan
PCBs	Polychlorinated biphenyls
PCP	Pentachlorophenol
POPs	Persistent Organic Pollutants
PMU	Project Management Unit
PRONASQ	Programa Nacional de Segurança Química (National Chemical Safety Programme)
SISNAMA	Sistema Nacional de Meio Ambiente (Brazilian National Enviornmental System)
SMCQ	Secretariat for Climate Change and Environmental Quality
UNEP	United Nations Environment Programme
UNITAR	United Nations Institute for Training & Research
WB	The World Bank

1.0 Project Description; Background and Context

1.1 Introduction

1. Brazil signed the Stockholm Convention on Persistent Organic Pollutants (hereinafter 'the Stockholm Convention' or 'the Convention') on the date when it opened for signature[3] and ratified the Convention on 16th June 2004.

2. Brazil recognises its obligation, under Article 7 of the Convention, to develop a National Implementation Plan (NIP) and transmit it to the Conference of the Parties (CoP) within two years of entry into force of the Convention[4]. To that end, the Ministério do Meio Ambiente (MMA), with the assistance of the United Nations Environment Programme (UNEP), is executing a preparatory project to identify the requirements for developing the NIP. This work is supported by a Project Development Facility Block B (PDF-B) grant from the Global Environment Facility (GEF); its principal outcome is this proposal for a GEF Full Project to develop the NIP.

3. The MMA proposes to meet its obligation by developing the NIP in two phases: Existing information, available from Government and other stakeholders, has been collated during the preparatory phase of this project. It will be compiled into a provisional national plan for transmission by the deadline. It is recognised, however, that this information does not provide a complete assessment of the country situation with regard to POPs and that further investigations are necessary. These investigations, and the ranking and action planning necessary for the preparation of an updated and more comprehensive NIP, form activities proposed here for the Full Project phase. It is proposed that this phase will then completed in two years, allowing the revised NIP to be developed for submission for Government endorsement before transmission to the Conference of the Parties early in 2009.

4. In view of the considerable volume of work required to prepare the NIP, a start must be made as soon as the necessary technical and financial support from the international community is provided in accordance with Article 13 of the Convention. Early implementation of the Full Project proposed here will provide support and assistance at its outset for the completion of the provisional NIP as well as for the national reporting required of all Parties by 31 December 2006[5].

5. The overall objective of the full project is to develop the NIP for Brazil to implement the Convention. To this end, the Project will

   Establish inventories, or otherwise develop strategies to establish inventories, on the production, use, trade, stockpiles and wastes of, and sites contaminated by, chemicals listed in the Annexes of the Convention and existing in Brazil;

   Develop strategies and action plans for the reduction and elimination of the chemicals listed in Annexes of the Convention and existing in Brazil;

   Assess infrastructure capacity and propose management options, including institutional arrangements, regulatory frameworks, and requirements for capacity building, raising stakeholder awareness and research and development, to ensure the effective and sustainable implementation of the proposed strategies and action plans and thus facilitate Brazil's transition to full implementation of the Convention;

   Build sustainable capacity sufficient to prepare the NIP and its component inventories, strategies and action plans, and to fulfil ongoing reporting requirements of the Convention; and

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[3] The Convention was opened for signature on 23 May 2001 in accordance with Article 24 of the Convention. As at 05 March 2006, there were 151 Signatories and 120 Parties to the Stockholm Convention.

[4] Article 7(1)(a)-(b) of the Convention. The Convention enters into force for a Party on the 90th day after the date of deposit of the instrument of ratification (Article 26(2)).

[5] Article 15(2) and decision SC-1/22: *Party reporting, timing and format* of the 1st meeting of the Conference of the Parties

Develop and demonstrate methodologies representing practical and feasible approaches to priority actions required by Brazil in meetings its Convention obligations.

1.2 Current Situation

6. The following sections present a description of Brazil and its chemicals management infrastructure and policy. These represent the background or baseline for the present project. The information has been gathered by the studies commissioned for the PDF-B phase of the project. Use has also been made of the Brazilian Chemicals Management Profile developed by the Comissão Nacional de Segurança Química (CONASQ – National Commission on Chemical Safety) in 2003[6], under the coordination of the Ministry of the Environment (MMA).

(a) Overview

7. Brazil is located in the Western Hemisphere largely between the Equator and the Tropic of Capricorn. About 90% of its territory lies in the Southern Hemisphere. The country has a land

Figure 1: Map of South America showing the location of Brazil

boundary with all the countries of South America except Ecuador and Chile. To the North East and South East, Brazil has a coastline with the Atlantic Ocean (Figure 1).

8. The following general statistics for the country have been obtained from the Brazilian Institute of National Statistics and Geography (IBGE):

[6] Brazilian Chemicals Management Profile. 2003. Ministry of Environment:Brasilia. 264pp

Table 1: Summary National Statistics (source IBGE)

Official Name	Federal Republic of Brazil
Form of Government	Presidential Republic
Language	Portuguese
Land Area	8,514,204.9 km^2
Length of Frontier	15,735 km of border with 10 countries; 7,367 km of coastline with the Atlantic Ocean
Total Population	169,799,170 (2000 census)
Urban Population	81.25%
Rural Population	18.75%
Working age group (15-64 years)	64.55%
Birth rate	19.89 (per thousand inhabitants, 2001)
Life Expectancy	68.82 years
Literacy Rate	82.2% (1999)
Gross Domestic product	R$ 963,868,000,000 (1999)
Share (%) of value added to basic prices	Industry: 37.52% Agriculture and livestock: 7.69% Services: 58.89% *Financial dummy -4.1%*
Electricity Consumption (GWh)	307,449 (Electrobrás, 2000)
Total Primary Energy Consumption	258 x 10^6 tpe (MME, 2000)

Figure 2: The States and Geographical Regions of Brazil

9. The political and administrative organisation of the Federal Republic of Brazil encompasses the Union, the States, the Federal District and the Municipalities. The capital, Brasilia, is located inside the Federal District in the centre of the country. There are 5,561 Municipalities across the country. The 26 States and the Federal District are grouped into five geographical regions (Fig 2).

10. Table 2 presents an overview of the Brazilian industrial, agricultural and livestock segments of the economy by share of GDP, number of people employed and the major products and fields of service for 1999:

Sector	Share of GDP%	Numbers Employed	Major products & fields of service
Industry	35.6	13,804,961	Foodstuffs and beverages; chemicals, oil refining and alcohol production; steel, automobiles, machinery and equipment; non-metallic minerals; textiles, clothing, footwear; civil construction
Agriculture and livestock	8.19	17,372,105	Rice; sugarcane; maize; cocoa; beans ; bananas ; coffee ; oranges ; soybeans ; cotton ; poultry ; cattle
Services	49.11	30,880,779	Transport; communications; public administration
Trade	7.1	9,618,374	
Total	**100**	**71,672,219**	

Table 2: Overview of Industry, Agriculture and Livestock (1999)

11. ***The agriculture and livestock sector*** provided a direct contribution of R$86 billion to national GDP in 2000. This rises to almost R$306.86 billion, approximately 27% of GDP, if the current concept of agribusiness – taking into account everything from raw materials to processing and sale, including the inputs machinery and tools supply sectors, is considered. Exports from the sector represent about 33% of Brazilian foreign sales bringing in exchange revenues of about US$19 billion per year.

12. Rural work employs 16.6 million workers, approximately 24% of the economically active population, and is the largest employment sector of the economy.

13. Brazil leads World production of sugarcane, with 339 x 10^6t.a^{-1}, citrus fruit, 32 x 10^6t.a^{-1}, and coffee, 27.5 x 10^6bags.a^{-1}, and produces about 80 x 10^6t.a^{-1} of the grain crops listed in Table 2. Meat production amounts to about 15 x 10^6t.a^{-1} of which beef and poultry each contribute about 45%. Forest products and fishing are also important, accounting for annual revenues of over R$4 billion

14. Domestic consumption of agricultural pesticides is dominated by a small group of seven products that account for 46% of all use (IBGE, 2004). Glyphosate and 2,4-D account for 48% and 10% respectively of herbicides used; Copper oxychloride and mancozeb represent 26% and 17% respectively of fungicides used; and methamidophos, endosulfan and clorpyrifos represent 20%, 19% and 10% respectively of insecticides used.

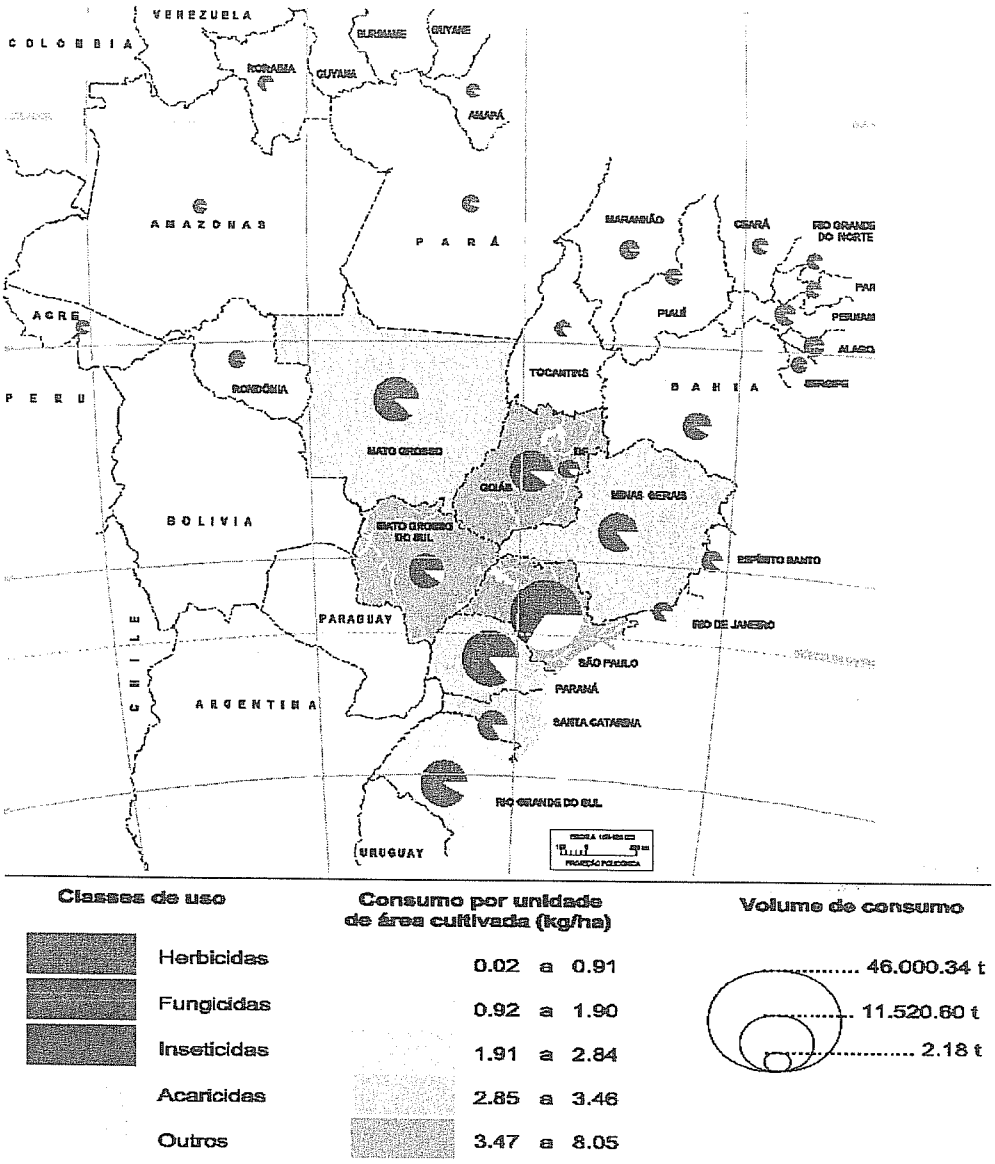

Figure 3: Pesticide consumption in Brazil 2004

15. ***The industrial sector*** employs almost 6 million workers, about 20% of the economically active population. In the 1990s, Brazilian industry accounted on average for 37% of GDP and accounts for almost 60% of export earnings. Industry is particularly concentrated in the Southern, South-Eastern and North Eastern Regions. Its distribution is shown in Figure 4 and described further in Table 3.

Region	Main Produce	Share of industry in regional GDP (%)	Share of industry in national GDP (%)
North	Foodstuffs; wood and furniture; civil construction; electrical & electronic; mechanical & transportation; mining.	27.7	4.6
North East	Foodstuffs; textiles & clothing, footwear; steel & mechanical products; furniture; petrochemicals.	33.4	12.7

Mid West	Foodstuffs; steel products; mining; civil construction	16.5	7.5
South East	Steel; metals; mechanical products & automobiles; agribusiness; foodstuffs; mining; electrical & electronics; chemicals	39.1	59.1
South	Foodstuffs; chemicals; clothing & footwear; agribusiness; paper & pulp; fertilizers; textiles	34.3	16.1

Table 3: Regional distribution of industry and production in Brazil

16. In 1999, the chemical industry contributed almost 14% of the value of industrial manufacture, second only to the food and beverage industry, and employed almost 300,000 workers. Chemical production is particularly concentrated in the state of São Paulo where almost 60% of chemicals plants are located.

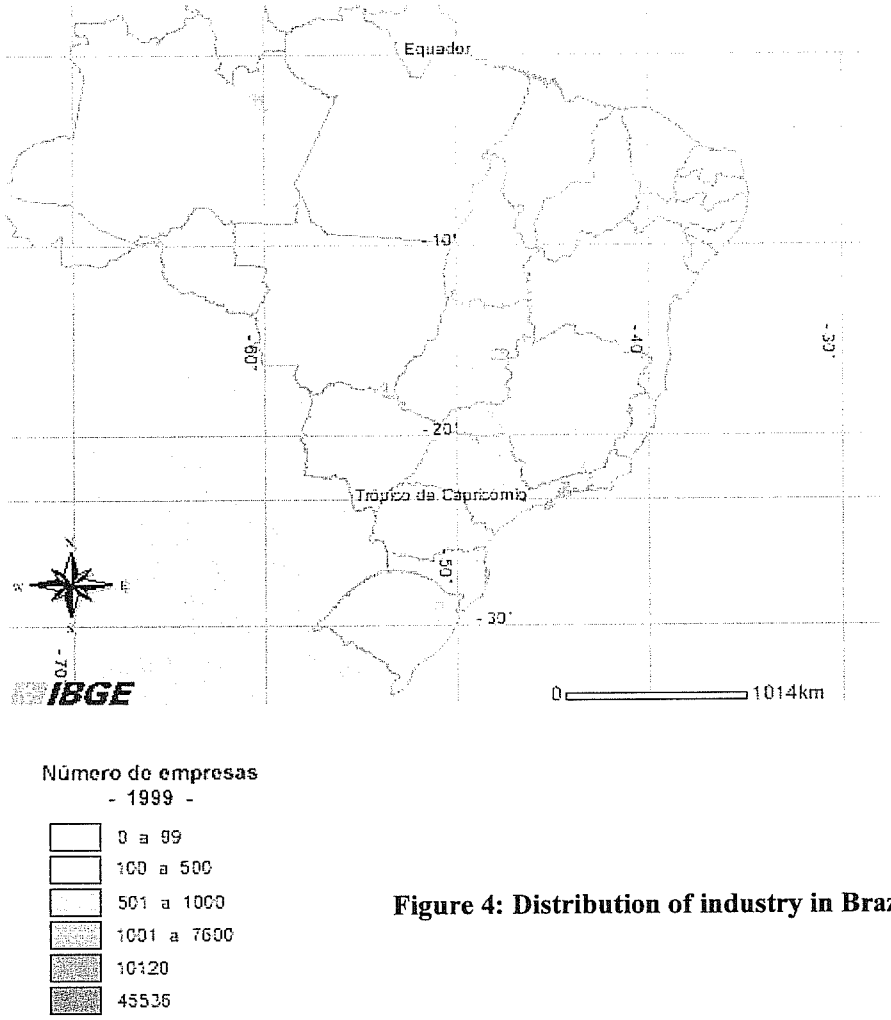

Figure 4: Distribution of industry in Brazil

(b) Country situation with regard to POPs

17. The Stockholm Convention lists at total of 12 organochlorine chemicals or chemical groups. None of these is now produced in Brazil and all have been the subject of legal prohibitions or restrictions on their production, trade and use since 1985.

18. ***Organochlorine compounds for pesticide use*** were first registered in Brazil in 1946. In the following years, the use for plant protection formulations comprising **DDT**, HCH and Parathion increased rapidly. In the 1970's, following international concern about the safety of such chemicals, Brazil restricted their production, trade and use through the publication of a series of

regulations. This was followed in 1985 by Ministry of Agriculture regulation MAPA 329/85 prohibiting the trade, distribution and use of organochlorine pesticides in agriculture, except in declared emergencies. It is worth to consider the Federal Law 7802/89, which prohibits the register of pesticides if they are organochlorinated and/or have teratogenic or carcinogenic characteristics, provoke hormonal dysfunctions, or can cause damage to the environment, among other requirements.

19. Regulation MS 11/1998 of the Ministry of Health cancelled all authorizations to use the following organochlorine compounds in public health campaigns and disease vector management: **Aldrin**, **DDT**, **Endrin**, **Heptachlor**, **HCB**, HCH and Lindane, Parathion, Pentachlorophenol.Table 4 provides a summary of the production, trade and use of POPs pesticides in Brazil. Federal law 7802/89 prohobits the registration of organochlorine pesticides and those that have teratogenic or carcinogenic characteristics, provoke hormone dysfunction, or can damage the environment, amongst other requirements.

Chemical	**Production & stocks**	**Agricultural Use**	**Public Health Use**	**Trade, import/export of chemical & formulations**
Aldrin	1977-1990, export only after 1985, Shell, Paulinia	Banned by MAPA 329/85,	Banned by MS 11/1998	Prohibited by MAPA 63/92
Chlordane	Never produced but imported and formulated in Brazil	Banned by MAPA 329/85.	Banned by MS 11/1998	Small amounts imported in 1990, 1991
Dieldrin	Some production by Shell, Paulinia	Never registered for use	Never registered for use	
Endrin	Production not confirmed but formulation from imported product likely	Banned by MAPA 329/85.	Banned by MS 11/1998	No data as no specific customs coding before 2003
Heptachlor	Never produced. Formulation in Brazil Stock of 103t held by enterprise at product cancellation in 2004	Banned by MS 12/1998. Registration of all products cancelled in 2004	Banned by MS 11/1998	1500t imported between 1989 and 2000
HCB	Possible production as by-product of chemical manufacture	Never registered for use	Never registered for use	
Mirex	Never produced but imported and formulated in Brazil	Banned by MAPA 329/85	Banned by MS 11/1998	191t imported 1989. Prohibited by MAPA 63/92
Toxaphene	Never produced	Never registered for use	Never registered for use	No data as no specific customs coding
DDT	Produced 1962-82, total production c.73.481t	Banned by MAPA 329/85	Banned by MS 11/1998	Imports: c.31,130t 1962-1975, c.2500t imported 1990, 1991. 7t imported in 2001

Table 4: Summary of production, trade and use of POPs pesticides in Brazil

20. ***DDT*** was produced in Brazil from 1962 to 1982. Total production is estimated at 73,481t. In addition, 31,130t was imported between 1962 and 1975 and a further 3,200t were purchased between 1989 and 1991 and 7t in 2001. A possible significant secondary source of DDT is as a contaminant in dicofol. In 2000, Brazil produced 209t of dicofol and imported a further 111t.

21. ***Polychlorinated biphenyls (PCBs)*** are industrial fluids that were commercially produced in a number of countries between about 1930 and the 1980s. They were sold as mixtures containing varying amounts of the 209 possible different compounds. Due to their chemical inertness, resistance to heat, non-flammability, low vapour pressure and high dielectric constant, they were

used in a wide range of industrial applications including as dielectric fluids in transformers and capacitors; as hydraulic fluids; as heat exchange fluids; as functional additives in paints, sealants and caulks, and plastics; and in carbonless copy paper.

22. By the 1970's, it was recognized that PCBs were persistent, toxic environmental contaminants and most countries banned the manufacture and importation of PCBs and PCB-containing products and articles. However, the long service lifetime of electric equipment means that thousands of capacitors and transformers remain in service in many countries around the world while more has been discarded and awaits disposal.

23. Transformers and capacitors for use in electrical supply have been made in Brazil since the 1940's. PCBs were never produced in Brazil and their use and trade were specifically banned under interministerial administrative act 19/1981.

24. Equipment containing PCBs was imported and in 1982, the Brazilian Committee for the Electrical Industry (COBEI), of the Brazilian Association of Technical Standards (ABNT), estimated that in the period 1945 to 1981 21,000t of PCB transformer fluids and 5,000t of PCB capacitor fluids had been imported. Much of this is likely to have been imported before the 1970's when the import of equipment and products likely to compete with Brazilian goods was restricted.

25. From the 1982 survey, it was that the total tonnage of PCB equipment imported is likely to be about 100,000t. Owners of PCB oils and equipment containing or contaminated with PCBs are required to register their holdings with the pertinent environmental and regulatory agencies; it is, however, recognized that the inventory may not capture all contaminated equipment as testing is not complete. There has been no survey of PCB use in other articles.

26. In the early 1990's, Brazil exported PCB wastes to the United Kingdom for disposal. There are now three companies in Brazil licensed to incinerate PCB liquids while a further company is licensed for the disposal of PCB contaminated solids. There is, however, no legal impediment to the export of PCB wastes for the purposes of environmentally sound destruction.

27. ***Polychlorinated dibenzo-p-dioxins and dibenzofurans (dioxins and furans), HCB and PCBs*** are unintentionally formed and released from thermal processes involving organic matter and chlorine as a result of incomplete combustion or chemical reactions. Parties to the Stockholm Convention are obliged to reduce the total releases deriving from anthropogenic sources with the goal of their continuing minimisation and, where feasible, ultimate elimination[7].

28. Dioxins and furans from most sources are usually produced as mixtures of varying composition and are widely recognized as the most toxic environmental contaminants recognized to date, especially in light of the minute amounts that can cause adverse effects. While more information is available on dioxins and furans, it is becoming increasingly apparent that HCB and PCBs are also produced and released from the same types of sources. Thus, actions taken to address dioxin and furans will likely have co-benefits in reducing associated releases of HCB and PCBs. In addition, these 4 POPs are found as contaminants in a number of industrial chemicals (e.g., chlorinated solvents) and pesticides (e.g., pentachlorophenol) and it is important to address such products as they constitute sources of releases to the environment.

29. The Stockholm Convention lists a number of source categories that are significant sources of unintentionally produced POPs (Annex C, Part II) and provides a further, open, listing of sources likely to contribute to the unintentional production and release of POPs (Annex C, Part III). The great majority of these sources are found in Brazil but there has been no systematic assessment made to estimate total releases.

30. Industrial processes that are potential sources of unintentional production and release of POPs must be licensed and report production and waste statistics to State and Federal authorities. Direct measurement of POPs releases is not a routine requirement of environmental licensing so that

[7] Article 5 and Annex C

source-based analytical data is sparse. The following paragraphs provide a brief description of source categories listed in Annex C Part II of the Convention.

31. It is estimated that 228,000t.d^{-1} of ***wastes*** are generated in Brazil. Of this, 125,000t is domestic refuse[8]. Brazil does not incinerate domestic refuse. Incineration is used for the disposal of a variety of industrial and medical wastes and preliminary information is provided in table 5.

Incineration	No.	Installed capacity	Unit	Remarks
Industrial wastes (commercial)	8	48,200	t.a^{-1}	Disposal of mixed industrial wastes including organochlorines.
Industrial wastes (dedicated)	6	3.362	kg.h^{-1}	Facilities at chemical plants to dispose of production wastes
Airport wastes	9	9,306	t.a^{-1}	Mixed airport wastes, some facilities restricted to medical/infectious wastes
Hospital wastes	11	*60 (estimated)*	t.d^{-1}	

Table 5: Summary of industrial and medical wastes incineration capacity

32. A plan for the management of airport solid wastes seeks to reuse and recycle wastes whenever possible in order to reduce the volumes to be incinerated. A similar waste segregation and minimization strategy has been introduced for medical and hospital wastes under CONAMA resolution 358/04 of 2004.

33. Brazil is amongst the world's largest ***pulp and paper*** producers and exports. Production is based largely on sustainable eucalyptus plantations. Rapid expansion and modernisation in recent years has increased total capacity to about 10 x 10^{6}t.a^{-1}, improved efficiency and sought to address environmental impacts. The great majority of the industry uses elemental chlorine-free (ECF) bleaching technology recognized as a best available technique[9].

34. ***The metallurgical industry*** is an important contributor to the Brazilian economy and has the potential for comparatively high formation and release of unintentionally produced POPs. Annual production is summarised as follows:

- Total iron and steel production reached 32.274 x 10^{6}t in 2004, equivalent to 32.274 x 10^{6}t of sinter, and consumed 12.9 x 10^{6}t of coke.
- Primary production of electrolytic grade copper reached 173,378t in 2003 while a further 20,000t was produced from secondary processes.
- Primary aluminium production amounted to 1.38 x 10^{6}t in 2003. About 30 companies are engaged in secondary aluminium production and the rate of recycling and reclamation is one of highest in the world.
- Primary lead production of 10,700t.a^{-1} (as metal in concentrate) is exceeded by secondary production of about 50,000t.a^{-1} of which a large part is the reclamation of lead from vehicle batteries
- In 2003, Brazil produced 262,998t of zinc. Small amounts of zinc are probably reclaimed but no data is available

35. Estimation of total releases of unintentionally produced POPs is now underway using the UNEP 'Toolkit'. It is recognised, however, that there are difficulties with this modelling approach both from the estimation of production and pollution control measures and in the emission factors set out for various categories. Brazil will seek to move away from model-based estimation as quickly as possible by improving the availability of emissions sampling and analytical capacity and

[8] Jucá, J.F.T, 2003 Disposição final dos resíduos sólidos urbanos no Brasil, REGE O 2003; 5o Congresso brasileiro de Geotecnica Ambiental, pp1-32, Porto-Alegre-RS.

[9] Secretariat of the Stockholm Convention. 2006. Guidelines on Best Available Techniques and Provisional Guidance on Best Environmental Practices: Revised Draft. [Section V.C] Geneva: Switzerland

enhancing reporting requirements. Nevertheless, the model data will be needed identify source categories that may represent priorities for action to achieve the significant and meaningful reductions in emissions sought by the Convention. In this context Brazil will continue to collaborate internationally to improve the research base on which modelling is based.

36. ***POPs waste- and site contamination*** issues are principally related to sites of former production, formulation, storage, distribution and, for PCBs, equipment maintenance and disposal. While no systematic data exists for the country as a whole, the Environmental Sanitation Technology Company (CETESB) of the state of São Paulo, the most industrialised state of the Union, has developed and maintained an inventory of potentially contaminated sites for some years. This inventory now lists a total of over 1500 sites and has grown considerably in recent years in response to improved licensing and control regimes, improved attention to industrial accidents and better reporting.

37. CETESB has implemented a programme of site remediation targeting 510 of the listed sites. Work on 24 sites has been completed and remediation planning on a further 137 sites is in progress. A further 833 sites are now proposed for clean-up.

38. Not all of the contaminated sites are fully characterised and not all will be contaminated by POPs. However, a number of POPs contaminated sites are known and summary data is provided in table 6 (below).

Locality	**State**	**Contaminants**	**Remediation planned/ in progress**
ABS FRITAS AGRÌCLOLAS LTDA. Rua João Canzi, 780 – Núcleo Itaim – Ferraz de Vasconcelos	SP	Hexaclorobenzene, heptaclorobenzene, cadmium, nickel and zinc.	Yes
BASF S/A Rua Machado de Assis 120 – Cerâmica - São Caetano do Sul	SP	Organocloride Soolvents, heavy metals and PCBs.	Yes
Bayer S.A Estrada da Boa Esperança, 650 26110-100 – Belford Roxo	RJ	Lalogenated Benzenamina, benzene,benzamida, Cloride benzenes, PCBs, derivados do DDT, plumb and mercury.	No
Cidade dos Meninos Estrada Rio-Petrópolis, km 12 – Duque de Caxias	RJ	HCB (hexaclorocicloexane)	Yes
Columbiam Chemicals Brasil Ltda. Estrada da Fonseca s/n – Distr. Industrial – Cubatão	SP	Oil Hidrocarbon and PCBs.	Yes
Eletropaulo Metropolitana eletricidade de São Paulo S/A Almoxarifado Piratininga Av. Nossa Senhora do Sarará, 5312 – Pedreira	SP	PCBs, toluene, PAHs, nickel, plumb and barium.	No
Eletropaulo Metropolitana eletricidade de São Paulo S/A Marginal do Rio Pinheiros s/n Km 14 – JD Vitória Régia	SP	Acetone, aldrin, PAHs, HCB and phtalates	No
Fersol Indústria e Comercio Ltda. ROD SP - 127 3000 Km 114 – São Cristóvão – Tatuí	SP	Atrazine e heptacloro epóxido	No
Fiat Automóveis S.A. Rodovia Fernão Dias, Km 429 Betim	MG	Dioxines and furanes	No
Fundação Nacional De Saúde (Funasa), - Sede Administrativa Rua Barão de Cotegipe no. 1520 Centro – Feira de Santana	B	HCB e DDT	No

Locality	State	Contaminants	Remediation planned/ in progress
Gerdau S.A. Av. Borges de Medeiros, 650 Bairro Colonial, Sapucaia do Sul	RS	PCBs, cadmium, mercury, zinc and plumb.	No
Klabin Riocell S.A. Rua São Geraldo, 1680 - Guaíba	RS	Dioxines anf furanes	No
Petrobras Transporte S.A – Transpetro Caminho dos Pilões s/n – Ponte Preta – Cubatão	SP	Heavy metals, inorganic compounds, oil hidrocarbons, PCBs and halogenated solvents	No
Rede Ferroviària Federal S/A Fazenda Nacional de Ipanema - Flona de Ipanema – George Oetterer – Iperó	SP	PCBs	No
Rhodia S.A. Unidade de Cubatão – Estrada Dom Domênico Rangoni Km 4 s/n – Bairro Industrial – 11.500-000 Cubatão	SP	Pentaclorophenol, hexaclorobenzene, halogenated, solvents, hexaclorobutadiene, chlorobenzene, tetracloroetilene, tricloroetilene and dicloroetilene, 1,2 dicloroetane and tricloroetane.	Yes
Shell Brasil S.A. Avenida Roberto Simonsen, 1.500, Paulínia – São Paulo - SP	SP	Aldrin, endrin and dieldrin, BTEX, PAHs and TPH.	Yes
Shell Brasil S.A. Vila Carioca – Ipiranga	SP	benzene, toluene, xilene, etilbenzene, plumb and other heavy metals aldrin, dieldrin and isodrin.	Yes
Solvay Indupa do Brasil Estrada de Ferro Santos - Jundiaí Km 38, Santo André,	SP	Dioxines, percloroetilene and mercury.	No
SPAL Ind Brasileira de Bebidas S/A Av. Eng. Alberto de Zagotis 352 – Jurubatuba - São Paulo	SP	PCBs, TPH (total oil hidrocarbons), plumb, cobalt, cromium, níckel, bárium, aluminum, manganese and iron.	No

Table 6: Summary data for known POPs-contaminated sites

(c) Brazil's policies and legislative framework relevant to POPs

39. In the federal form of government adopted in Brazil, environmental responsibility is shared between the Union, the States and the Municipalities. Responsibilities common to all three tiers of government are health care and public welfare, protection of the environment and the fights against pollution in all its forms.

40. The legal provisions concerning these issues, established at the federal level, may be supplemented by legislation brought in by other levels of government. In this way, although States and Municipalities may not disobey a federal norm, they may adopt more restrictive measures and standards that those adopted by the Union.

41. Federal law 6.938 of 1981 sets out the national environment policy and its basic principles were incorporated by the constitutional text approved in 1988. The Constitution obliges the public authority to:

- Control the production, marketing and use of techniques, methods and substances that jeopardize life, the quality of life and the environment
- Promote environmental education at all levels of education and raise public awareness concerning the preservation of the environment
- Demand with the law that any building work or activity that could potentially cause significant degradation of the environment present a prior environmental impact study.

42. These obligations to protect human health and the environment are closely allied to the objective of the Stockholm Convention that Brazil signed on 23rd May 2001. The Convention was ratified by the Federal Senate on 16th June 2004 (Legislative decree 204) and its text promulgated via Executive decree 5.472 of 20th June 2005.

43. Accepting the Convention was not, however the first legislation to regulate POPs chemicals and products. Indeed, Brazil recognized early some of the risks associated with POPs and has, over the past two decades, progressively introduced legislation and regulation designed to eliminate or regulate their production, trade, use and disposal. Federal legislation pertaining to chemicals management is summarized in Appendix 2, taken from the Brazilian Chemicals Management Profile (2003).

Table 7: Summary of federal and state regulatory instruments pertinent to POPs

Instrument	Responsible body	POPs chemical relevance	Objective
Law 7802/1989	MAPA, MS, MMA	Pesticides, components and similar chemicals	Provides for research production, packaging and labelling, transport, storage, sale, use, export and import, wastes disposal, registration, classification, control, inspection, supervision
Decree 4074/2002	MAPA, MS, MMA	Pesticides, components and similar chemicals	Regulates Law 7802 and revokes earlier decrees; provides revised pesticides registration governing production, trade, use etc.
Resolution 357/2005	CONAMA	HCB	Provides maximum permitted levels in effluents discharged to water
Regulation 518/2004	ANVISA	HCB	Provides maximum permitted levels in effluents discharged to potable water and sets out responsibilities for control and monitoring
Standard NBR/IEC 17025:2001	INMETRO	HCB	Methodology for determination by gas chromatography of HCB in water
Interministerial act 19/1981	MME, MDIC, MI[7]	PCBs	Bans the establishment of manufacturing processes whose major purpose is to produce PCBs
Resolution 313/2002	CONAMA	PCBs	Provides for an inventory of PCB stocks and industrial wastes
Standards STC/CRS 1:1986 and ABNT/NBR 8371	SEMA[8] INMETRO	PCBs	Procedures for handling, transport and storage of materials containing PCBs
Resolution 316/2002	CONAMA	Dioxins & Furans	Procedures and criteria for operating thermal wastes treatment systems, provides limits on dioxin and furan emissions
Resolution 357/2005	CONAMA	Dioxins & Furans	Provides controls on pollution to water bodies and the environment
Standards 8/1999, 9/1999, 10/1999	MAPA	Dioxins & Furans	Registers all food and feed manufacturers; establishes limits to permitted dioxin/furan contamination in products, monitors production,
Resolution CEPRAM 1969/1999	Bahia state	Dioxins & Furans	Determines operating limits on emissions from incinerator (1 ng(TEQ)/Nm^3 @ 11% O_2)
Resolution 041/2002	Paraná state	Dioxins & Furans	Determines limits on emissions from thermal treatment, incineration, co-processing, and crematoria (0.5 ng(TEQ)/

			Nm^3 @ 7% O_2)
Resolution CONSEMA 009/2000	Rio Grande do Sul state	Dioxins & Furans	Determines limits on emissions (i) incinerators with capacity < 200 $kg.d^{-1}$ (2.47 ng(TEQ)/Nm^3 @ 7% O_2) (ii) incinerators with capacity > 200 $kg.d^{-1}$ (0.64 ng(TEQ)/Nm^3 @ 7% O_2) Adopts USEPA methods of determination
Standard FEEMA NT-574.R-0: 1993	Rio de Janeiro state	Dioxins & Furans	Determines limit on emissions from thermal treatment of wastes (12 ng(TEQ)/Nm^3 @ 11% O_2)
Decree 8468/1976	São Paulo state	Dioxins & Furans	Prevents and controls pollution and prohibits the treatment of chemical products by means resulting in dioxin contamination or emission
Resolution CETESB 007/97/P	São Paulo state	Dioxins & Furans	Determines limits on emissions from medical waste incinerators with capacity > 200 $kg.d^{-1}$ (0.14 ng(TEQ)/Nm^3)
Decision CETESB 26/03/E	São Paulo state	Dioxins & Furans	Determines limits on waste co-processing in cement kilns (0.1 ng(TEQ)/Nm^3)

[7] The former Federal Environmental Agency (SEMA), actual IBAMA, was linked to the Ministry of Interior (MI), before de creation of the Ministry of Environment.

[8] The actual IBAMA is linked to the Ministry of Environment.

44. With regard to industry, the polluter pays principle is augmented by National Environment Policy, in Law 6938/81, which states environmental licences that introduced the precautionary approach to new activities. The major guidelines for its use were established by Decree 99274 of 1990 and by a series of CONAMA resolutions. Supplementary norms and administrative procedures for its use have been determined by IBAMA, for cases where jurisdiction in at the federal level, and by state environmental entities. Law 7802 of 1989 further defined the responsibilities of IBAMA to include the environmental licensing of works and activities with a significant environmental impact at national or regional level and in special cases regulated by CONAMA resolutions.

45. ***Environmental Impact Assessment*** is a basic premise for the administrative approval of a potentially polluting activity. It forms a key instrument of national environmental policy introduced by Law 6938 and was made obligatory for activities that change the environment by CONAMA resolution 1 of 1986.

46. Environmental licensing comprises the progressive issuance of three licences: a prior licence (licença prévia – LP), an installation licence (licença de instalação – LI) and the operating licence (licença de operação – LO). Each contains restrictions conditioning the execution of the project and the activity's environmental control measures. The process also includes routines for the supervision and monitoring of licensed operations. Reporting and monitoring required by the process form the basis of databases and the federal cadastre of maintained by IBAMA.

(d) The National Chemical Safety Programme of Brazil (PRONASQ)

47. The National Chemical Safety Programme (PRONASQ) was established by the MMA in recognition of the need to improve the management of chemicals in Brazil, taking advantage of the guidelines adopted by the Intergovernmental Forum on Chemical Safety (IFCS). It is supervised by an interministerial commission (CONASQ) described in the following section. The Programme comprises ten action initiatives:

- Control and inspection mechanisms in chemicals management
- Exchange and dissemination network for chemicals safety information in Brazil
- Reduction of vulnerability to chemical accidents
- Contaminated areas

- Globally harmonised system of classification and labelling of chemicals (GHS)
- Chemical safety in universities and research institutions
- Implementation of international conventions (Stockholm, Rotterdam)
- Integrated management of pests and vectors
- Inventory of emissions and transfer of pollutants
- Brazilian chemicals management profile

(e) Relevant Institutions and their capacities

48. At the federal level, the National Environmental System (SISNAMA) was established by Federal Law 6938 of 1981 and comprises two principal elements: the formulation of National Environmental Policy and inter-agency exchange; and the enforcement of environmental conservation and quality improvement measures. CONAMA and the Ministry of the Environment (MMA) are the principal entities of the first element while IBAMA and the State Environmental Entities pertain to the second.

49. The ***MMA*** is the central body and hub of SISNAMA and is responsible *inter alia* for national environmental and water resource policies; for developing strategies, mechanisms and economic and social instruments to improve the quality of the environment and natural resources; and for policies to integrate industrial production and the environment. Within the MMA the ***Secretariat for Climate Change and Environmental Quality (SMCQ)*** has a mandate pertaining to pollution; environmental degradation and hazards; environmental impacts and licensing; wastes harmful to health and the environment; urban environmental policy; and to integrated management of the coastal and marine environments. The SMCQ, through its Direction for Environmental Risks Management, is responsible for all the chemicals issues in the Ministry, including *inter alia* studies of the situation of POPs in the country; for participation in Brazilian representation to the Stockholm Convention; for coordination of its implementation; and for management of activities and personnel engaged in its implementation.

50. ***CONAMA*** is a collegiate body established within MMA and comprising a number of governmental bodies. Its principal aims are to study and propose government policy guidelines for the environment and natural resources; and deliberate norms and standards pertinent to sustainable development. It is responsible for establishing resolutions, norms, criteria and standards for the control and maintenance of the environment and for the licensing of polluting activities; for establishing a system for monitoring and enforcing environmental standards, norms and policies; and for drafting and implementing the national environmental agenda recommended to SISNAMA entities.

51. The ***National Commission on Chemical Safety (CONASQ)*** was established by MMA administrative act 19/2000 as an interministerial commission charged with institutional liaison and fostering discussion on chemical safety in order to implement the National Chemical Safety Programme (PRONASQ). MMA holds the presidency and provides secretariat support for CONASQ while the Ministry of Health (MS) provides the vice-presidency. CONASQ comprises 22 public and private sector institutions and NGOs. The responsibilities pertinent to POPs of Ministries represented on CONASQ are set out in Table 8. In addition to these, NGO representatives include the Workers' Central Trades Union (CUT), the National NGO forum, the Universities of Brasilia and São Paulo, the Brazilian Association of State Environmental Agencies (ABEMA), the Brazilian Chemical Industry Association (ABIQUIM), and the Pan-American Health Organization (PAHO).

Table 8: Summary of responsibilities pertinent to POPs of ministries represented on CONASQ

Ministry	Responsible entity	Responsibilities pertinent to POPs
Ministry of Health (MS)	Secretary of Health Monitoring (SVS)	Environmental monitoring and control of threats to human health and potable water quality from: chemical and physical contaminants; natural disasters; accidents involving hazardous products

	National Foundation for Health (FUNASA)	Campaigns of public health, including disease vector control; Addressing problems in the use of pesticides; and Safety and final disposal of stocks of pesticides used in public health, such as DDT.
	Natonal Agency for Sanitary Surveillance (ANVISA)	Promoting and protecting public health through the control of production and use of products and services representing sanitary risks; Provision of controls and quarantine at ports, airports and frontier crossings. Registration and recording of products and services, including chemicals, representing health risks.
	Oswald Cruz Foundation (FIOCRUZ)	Research and analysis of threats to public heath, the health of workers and ecotoxicology
Ministry of Labour and Employment (MTE)	Secretary for Inspection of Work (SIT)	Provision, monitoring and enforcement of standards and norms for worker safety and occupational health.
	Jorge D Figueiredo Foundation (FUNDACENTRO)	Science and technology support to public and private entities in respect of reducing chemicals risks (i) in the work place; (ii) in agricultural work
Ministry of Transport (MT)		Sound management of PCBs equipment in national railway systems and the regulation of the transportation of hazardous goods
	National Land Transport Agency (ANIT)	Regulation of land transport of hazardous goods
	National Agency for Water Transport (ANTAQ)	Regulation of transport and shipping of hazardous goods by water
Ministry of Agriculture, Livestock and Supply (MAPA)		Promotion, regulation and protection of agriculture and livestock production; Control and regulation of the production, trade and use of pesticides
Ministry of Development, Industry and External Trade (MDIC)		Policies and regulation of external trade; Collection and maintenance of information about trade via information system ALICEWEB
Ministry of Justice	National Institute for Metrology, Standards and Industrial Quality (INMETRO)	Provision and enforcement of certification and inspection schemes; Accreditation of calibration laboratories.including those for the detection and characterization of POPs
Ministry of Science and Technology (MCT)		Development and implementation of national policy with regard to science and technology; Secretariat of interministrial commission for the application of the Convention on Chemical Weapons; Promotion and development of cleaner production techniques for industry
Ministry of Mines and Energy (MME)		Management and elimination of PCB equipment in the energy and mining sectors
	Centrais Elétricas Brasileiras SA (ELETROBRÁS)	Inventory and guidance for the management and elimination of PCBs in the energy sector
Ministry of Foreign Affairs (MRE)	Departments of (i) Environment and Special Themes; (ii) Environmental Policy	Articulates the position of Brasil in meetings of the Parties to the Stockholm Convention and multilateral environmental agreements.

	and Sustainable Development	
Ministry of Justice (MJ)	Federal Police Federal Traffic Police	Control and enforcement of laws and regulation governing national and international transport of hazardous products, prevention of smuggling and illegal trade.
Ministry of Education (ME)		Responsibilities for tertiary education and federal research, provision and dissemination of academic training and research
Ministry of Finance	Secretariat for Federal Revenues; Coordinator General of Revenues (COFIS) & Customs Administration (COANA)	Acts in the control of foreign trade of products and chemical substances, including POPs.
Ministry of National Integration	National Civil Defence System (SINDEC)	Coordinates efforts to prepare for and respond to national emergencies and natural disasters

52. Brazil's environmental institutional structure dates from 1973 when the Special Secretariat for Environment (SEMA) was created. In 1989, ***IBAMA*** was created, linked to MMA, through the amalgamation of the environmental institutions SEMA, SUDEPE (fishing), SUDEHVEA (rubber) and IBDF (forests). It enforces federal environmental policy, MMA guidelines, resolutions of SISNAMA and other relevant legislation. With respect to POPs, IBAMA is responsible for pesticide registration, maintains federal registers of PCBs equipment, and operates the system of environmental licensing.

53. Table 9 provides an indication of areas of mandate of official institutions.

Table 9: Summary of responsibilities pertinent to POPs

Institution	Import	Production	Storage	Transport	Distribution and sale	Use	Emergencies	Final Disposal
MMA	X	X	X	X	X	X	X	X
MS		X	X	X	X	X	X	X
MAPA	X	X	X		X	X		X
MTE	X	X	X	X	X	X		
MF	X				X			
MME			X			X		X
MT				X				
MDIC	X	X			X			
MCT		X						X
Civil Defense							X	
MRE	X				X			
States	X	X	X	X	X	X	X	X

2.0 Rationale and Objectives

2.1 Rationale for GEF Intervention

54. Article 13 of the Convention sets out the principles on which "...developed country Parties shall provide new and additional financial resources to enable developing country Parties and Parties with economies in transition to meet the agreed full incremental costs of implementing measures that fulfil their obligations under the convention". Article 14 of the Convention states that "The institutional structure of the Global Environment Facility ... shall, on an interim basis, be the principal entity entrusted with the operations of the financial mechanism referred to in Article 13 ...".

55. In response, the Council of the Global Environment Facility agreed at its 19th meeting in May 2002 to amend the Instrument of the Facility to enable it to serve as an entity entrusted with the operation of the financial mechanism of the Convention. The Council having reviewed document GEF/C.19/14 recommends that the GEF Assembly designate "Persistent Organic Pollutants (POPs)" as a focal area in support to the implementation of the Convention.

56. Financial support to the Convention is currently focused on the preparation of National Implementation Plans, required by Parties under Article 7 of the Convention, during so-called Enabling Activities. Considering the scope of planning activities required, Brazil has opted to develop its National Implementation Plan through the GEF full project cycle.

57. Brazil is the largest developing country in Latin America with a largely urban population estimated in 2000 to be about 170 million. It has a developed a large integrated economy in which chemicals production, trade and use form an important component. These factors represent significant challenges to efforts to protect human health and the environment both within Brazil and globally.

58. Brazil has expressed its strong interest to play a full role as a Party to the Stockholm Convention. Supporting and enabling Brazil to comply with the obligations on Parties set out in the Convention will have a significant and positive influence not only on Brazil's own chemicals management regime but also on the ultimate global success of the Convention to protect human health and the environment from the threat of POPs. Successful efforts towards compliance will also serve as a model for other developing countries.

59. Brazil has opted to pursue development of its National Implementation Plan not through an Enabling Activities grant but through the full GEF project cycle, reflecting the scale of activities required in the country. It will provide financing to support significant components of the work required in NIP development and now seeks equivalent sums from the GEF to enable completion of the NIP during the full project.

60. The planned activities aim to remove barriers to the successful implementation of the Convention in the Brazil through actions compatible with the requirements of the Convention and specific guidance documents. These activities include work to establish a detailed assessment of the country situation with respect to POPs together with strategies and action plans to address priority issues, initial capacity building, and demonstration activities that serve to inform action planning and prepare the way for implementation following the planning phase.

2.2 Expected Outcomes, Objectives, Activities and Financial Inputs

61. The goal of this project is to protect human health and the environment from persistent organic pollutants – the principal objective of the Convention.

62. The purpose of this full project is to develop the NIP for implementing the Convention in Brazil in accordance with the requirements of Article 7 of the Convention, taking into account the guidance adopted at the first Conference of the Parties. The NIP endorsed by the Brazilian Government represents the principal output of this full project while the sustainable capability to implement the Convention in Brazil is its principal outcome. A logical framework for the project is given in Appendix 2.

63. The key elements of the NIP shall include:

- Government commitments to addressing the POPs issues

  Including: (1) a statement of Brazil's status and commitment in relation to the Convention; and (2) institutional and other arrangements for the implementation of the NIP, in particular, the determination of coordinating and implementing mechanisms.

- Country baseline

  Including: (1) a concise and clear country profile, with particular emphasis on information on economic sectors closely related to POPs issues in Brazil; (2) description and assessment of the current situations on institutions, laws and policies relevant to POPs management in

Brazil; (3) inventories on specific POPs chemicals and on relevant equipment and other articles and products listed in the Convention; and (4) and assessment of national capacity building and institutional strengthening needs.

- Strategies and action plans

  Including: (1) management strategies, action plans and investment needs required by Brazil to meet the obligations of the convention; (2) a methodology for the identification of sites contaminated by POPs or products containing POPs and a strategy for its implementation; (3) management and information systems functioning at national level and coordinated with State systems; (4) a national information system established and information dissemination and public awareness and education campaigns developed; (5) a determination of appropriate BAT and BEP for key sectors of industry and a strategy for its implementation.

2.3 Specific Project Objectives

64. To achieve these outputs, the activities of the project have been grouped into a series of objectives contributing to the planned outputs. These objectives are:

Objective 1: Project Management and Supervision

"To ensure the proper management and oversight of the project and the close coordination between its national and international actors in order to deliver high-quality project outputs on time and within budget"

Objective 2: Measures in relation to POPs wastes and sites contaminated by POPs

"To develop measures, appropriate to the obligations on Parties set out in the Convention, in relation to products and articles in use; wastes consisting of, containing or contaminated with intentionally or unintentionally produced POPs; and sites contaminated by such wastes."

Objective 3: Measures in relation to polychlorinated biphenyls (PCBs)

"To develop measures, appropriate to the obligations on Parties set out in the Convention, in relation to polychlorinated biphenyls (PCBs)."

Objective 4: Measures in relation to the unintentional production of POPs

"To develop measures, appropriate to the obligations on Parties set out in the Convention, in relation to unintentionally produced POPs."

Objective 5: Measures in relation to national infrastructure to implement the Convention

"To develop a sustainable infrastructure enabling Brazil to implement the Stockholm Convention at Federal and state levels."

Objective 6: Preparation and endorsement of the National Implementation Plan

"To prepare a high-quality national plan meeting Brazil's needs to implement the Stockholm Convention and suitable for Government endorsement and transmission to the Conference of the Parties."

65. Each of these objectives will require the execution of a series of activities. Wherever possible, these activities are developed in accordance with the initial guidelines prepared by the GEF[10] and following more detailed draft guidance prepared jointly by the UNEP and the World Bank[11].

3.0Project Activities / Components and Expected Results

66. An implementation plan for the project is provided in Appendix 4. The time required for individual activities does not allow for a significant degree of phasing within the overall length of

[10] Initial Guidelines for Enabling Activities for the Stockholm Convention on Persistent Organic Pollutants. GEF/C.17/4, April 6 2001

[11] Guidance on Planning and Developing National Implementation Plans under the Stockholm Convention.

the project. The preparation of national inventories, the identification of priorities for action, the drafting of action plans, consultation with stakeholders and Government, and the preparation of investment portfolios in the various technical areas of the project will require considerable time and it follows that they will be implemented in parallel.

Objective 1: Project Management and Supervision

Rationale:

67. National planning activities in respect of international environmental agreements and funded by the GEF are national executed, typically through Enabling Activities projects. Brazil has opted to undertake the preparation of its National Implementation Plan for the Stockholm Convention via the full GEF project cycle, taking account of the scale and complexity of POPs and chemicals management issues in the country. Nevertheless, the MMA will execute the project.

68. The MMA will appoint a project work team under the Secretary for Climate Change and Environmental Quality (SMCQ). The project work team will be responsible for day-to-day project management and prepare periodic forward planning, progress and financial reports concerning the project.

69. The MMA has established a National Commission for Chemical Safety (CONASQ) that has a National Chemical Safety Programme, which includes the follow up of Stockholm Convention implementation. This comprises over 20 government institutions and NGOs. This commission, chaired by MMA, will provide peer review and comment upon project outputs, provide guidance to the project at the macro-level, ensure that the contributions from stakeholders are incorporated into the project, and help disseminate project findings and outputs.

70. Brazil invited UNEP to act as GEF Implementing Agency for the development of the NIP. During the full project, as in the PDF-B phase, UNEP will establish a letter of agreement with MMA allowing for the release of funds to MMA at milestones identified during implementation planning. UNEP will assist MMA in the execution of the project by providing managerial and technical assistance as necessary.

71. UNEP is responsible to the GEF for the implementation of the project as a whole and will provide project supervision, annual Project Implementation Reviews and make arrangements for a terminal evaluation of the project in accordance with the policies and procedures of the GEF Monitoring and Evaluation Unit.

72. The proposed management structure for the full project is described more fully in Section 5.0 Implementation Arrangements, Monitoring & Evaluation

Activity 1.1 Establish project management and implementation arrangements

1.1.1 Operate national coordination mechanisms and effective national implementation

(i) establish project work team; (ii) recruit and supervise national and international experts and subcontractors as necessary to deliver project outputs; (iv) plan, organise and execute the project activities set out below; (v) prepare and present project plans, regular progress and financial reports to responsible officers within SMCQ/MMA to UNEP; (vi) regular report to other interested entities, such as CONASQ and Federal Ministries.

Activity 1.2 Operate project review, monitoring and evaluation regime

1.2.1 Establish technical peer review mechanism

(i) establish and implement national mechanisms of project evaluation; (ii) organise and lead a series of inception workshops to raise high-level awareness of the project; build government and NGO stakeholder engagement, conduct detailed implementation planning; (iii) Prepare inception report detailing implementation plans suitable for progress monitoring.

1.2.2 Establish project evaluation mechanisms

(i) organise and implement annual joint Project Implementation Reviews (PIRs); (ii) agree and implement a mechanism to provide independent management and financial reviews according to GEF M & E

procedures during the project; (iii) undertake a terminal project evaluation according to GEF M & E procedures; (iv) establish arrangements for independent financial audit at key stages.

Objective 2: Measures in relation to POPs products and articles in use, and for wastes and sites containing or contaminated by POPs

Rationale:

73. The Convention specifies the following obligations for Parties with regard to reducing or eliminating the releases of POPs from wastes and identifying POP-contaminated sites (Article 6).

a) Parties must develop strategies for identifying products and articles in use and wastes consisting of, containing or contaminated with intentionally or unintentionally produced POPs. Parties must take measures to ensure that these materials are:

- handled, collected, transported and stored in an environmentally sound manner;
- disposed of in such a way that the POP content is destroyed or irreversibly transformed into substances that do not exhibit POPs characteristics, or otherwise disposed of in an environmentally sound manner when destruction or irreversible transformation does not represent the environmentally preferable option or the POP content is low; and
- not subjected to disposal operations that may lead to recovery, recycling, reclamation, direct reuse or alternative uses of POPs.

b) Parties must develop and implement strategies for identifying ***stockpiles*** that consist of or contain intentionally produced POPs and manage these stockpiles in a safe, efficient and environmentally sound manner until they are deemed to be wastes (Article 6). A stockpile is deemed to be a waste when there are no remaining specific exemptions or acceptable purposes for a POP nor any prospects for exporting the stockpile.

c) Parties must restrict trade involving POPs wastes and ensure that shipments crossing international boundaries respect relevant international rules, standards and guidelines (e.g., Basel Convention, regional waste conventions). Imports and exports of wastes with Parties or Non-Parties may only be made where shipments are intended for environmentally sound disposal. For trade with non-Parties, the non-Party must provide annual certification to an exporting Party specifying the intended use of the chemical and expressing commitment to: protect health and environment by minimizing or preventing releases; comply with the requirements of the Convention concerning POPs wastes; and supply information on domestic legislation, regulations, policy and guidelines. The exporting Party must submit this certification to the Secretariat within 60 days.

d) Parties must provide reports on trade in POPs wastes including data on, or estimates of, the total quantities of chemicals that were produced, imported and exported, and a list of States from which it has imported or to which it has exported these POPs (Article 15).

e) Parties must endeavour to develop strategies for identifying sites contaminated by intentionally or unintentionally produced POPs. While remediation of such sites is not required by the Convention, if it is undertaken, it must be performed in an environmentally sound manner.

74. Brazil has taken the legal and administrative measures to prohibit and/or eliminate the production, use, import and export of intentionally produced POPs listed in Annexes A and B of the Convention.

75. Brazil has not applied, and does not intend to apply, for any of the available Specific Exemptions available under the Convention (Articles 3 and 4, Annexes A and B). Furthermore, Brazil has not requested inclusion in the DDT register for the use of this chemical for the acceptable purpose of disease vector control.

76. The activities here are, therefore, designed to meet Brazil's needs with regard to stockpiles, products and articles in use that may contain or be contaminated by POPs and for which a

notification to the Secretariat should be made; to provide a more complete understanding of the wastes consisting, containing or contaminated by chemicals listed in Annexes A and B that are known to occur at a number of sites across Brazil; to provide an assessment of these sites, and others formerly used in the production, trade, distribution, use and disposal of POPs chemicals and products that are likely to be contaminated by them.

Activity 2.1 Develop and implement strategies for identifying stockpiles and products and articles in use that contain or are contaminated by POPs

2.1.1 Develop methodologies for the sound management of products and articles in use

(i) develop, in conjunction with Activity 2.2, a methodology for determining an inventory of stockpiles and of products and articles containing or contaminated by POPs that may remain in use or storage; (ii) undertake an inventory of stockpiles, products and articles in use; (iii) prepare data in formats for inclusion in the data management system, for reporting in the NIP and for notification to the Secretariat; (iv) integrate the inventory with that developed in Activity 2.2 so that waste management planning can take account of stockpiles, products and articles currently in use.

2.1.2 Review regulations and develop guidelines for the management of stockpiles

(i) examine existing regulatory measures related to the management of stockpiles, products and articles in use; (ii) identify additional measures necessary for their safe, efficient and environmentally sound management; (iii) identify, and make proposals to overcome, barriers to effective working of current and proposed management measures; (iv) hold stakeholder workshop to review and endorse recommendations; (v) prepare recommendations for inclusions in the NIP and for incorporation into regulatory framework.

Activity 2.2 Develop and implement strategies for identifying and managing waste consisting of, containing or contaminated by POPs.

2.2.1 Develop and implement strategies to locate and characterise wastes

(i) develop methodology to locate and characterise wastes and sites that potentially host wastes, taking advantage, wherever possible, of information from inventories established in other activities; (ii) conduct training in inventory techniques for officials, investigators and key stakeholders likely to hold wastes; (iii) undertake preliminary inventory of wastes and sites; (iv) establish, within the overall POPs information management system, data management routines to identify, hold, display and report direct and proxy inventory data; (v) test proxy data elements through pilot investigations in selected areas; (vi) include inventory results in the NIP.

2.2.2 Evaluate regulatory framework and institutional responsibilities pertaining to the management of wastes and products and articles on becoming wastes

(i) review draft recommendations arising from other Activities of Objective 1 for the modification of the regulatory framework governing the management of POPs products in use, and of wastes, their international trade and disposal to ensure compatibility with Article 6 of the Convention and, where applicable, with other multilateral environmental agreements to which Brazil is party; (ii) make, where necessary, additional recommendations to ensure compliance; (iii) examine institutional responsibilities relating to measures to ensure that POPs wastes are handled, transported and stored in an environmentally sound manner and that actions are reported as required by the Convention; (iv) where appropriate, prepare recommendations for revised responsibilities;

2.2.3 Develop strategies for the appropriate disposal of POPs

(i) review recommendations from other Activities of Objective 1 relating to the disposal of POPs materials and wastes and test their compliance with Article 6 of the Convention; (ii) examine, where appropriate, techniques in use in Brazil and elsewhere to final addressing, irreversibly transform or otherwise dispose of POPs; (iii) assess the appropriateness of these techniques for application in Brazil and prepare recommendations establishing preferred techniques meeting the requirements of the Convention, including for BAT/BEP; (iv) examine any incremental costs involved in the introduction of appropriate disposal techniques or the modification of existing techniques to comply with the Convention; (v) prepare recommendations and a draft national strategy for implementation; (vii) hold a national stakeholder review meeting to examine and endorse recommendations and strategy;

2.2.4 Prepare and disseminate training and awareness raising materials and technical guidance for the management of POPs wastes

(i) prepare, in conjunction with other relevant activities, training and awareness-raising materials and technical guidelines to promote environmentally sound management and assist stakeholders to dispose of POPs products, articles and wastes in a manner compatible with the Convention; (ii) hold training and information meetings to disseminate information and guidance to Federal and state officials and for key stakeholders that either possess POPs wastes or operate disposal facilities.

Activity 2.3 Develop measures to identify sites contaminated by POPs

2.3.1 Develop a strategy for the identification of contaminated sites

(i) develop a methodology for the preparation of an inventory of potentially contaminated sites using, where possible, existing information relating to primary or secondary production, storage, transport, use and disposal of POPs or products containing POPs; (ii) implement this methodology and incorporate the results of inventory work undertaken in other activities to provide a national inventory; (iv) conduct preliminary investigations to refine this inventory in selected provinces through field characterization and interviews with relevant persons; (v) establish risk assessment criteria related to contaminated sites and make a preliminary assessment to identify sites requiring priority attention;

2.3.2 Develop data management system for information on contaminated sites

(i) augment existing information management systems or establish a Federal Cadastre of Contaminated Sites, within the overall POPs information management system, routines to hold, manipulate, display, model and report the inventory data.

Activity 2.4 Develop legal, regulatory frameworks and management guidance for sites contaminated by POPs and their remediation

2.4.1 Evaluate laws, polices and institution arrangements pertinent to responsibility for contaminated land and its remediation

(i) assess laws, policies and administrative instruments related to the prevention and control of contamination, to the management of contaminated, or potentially contaminated, sites and to the environmentally sound clean-up of such sites; (ii) make proposals for their amendment to meet obligations under the Convention and including the legal principles guiding the assignment of responsibilities and obligations; (iii) assess the capacities of relevant administrative institutions and propose options for institutional strengthening and capacity building to ensure proper monitoring and enforcement of regulations.

2.4.2 Establish guidance, standards and norms pertinent to the remediation of sites contaminated by POPs

(i) review existing regulation, guidance, standards and norms pertinent to the remediation of sites contaminated by POPs and assess their compatibility with the Convention; (ii) make recommendations as necessary to their revision and modification to meet Convention obligations.

Objective 3: Measures in relation to polychlorinated biphenyls (PCBs)

Rationale:

77. The Convention specifies the following obligations for Parties with regard to the management of PCBs and of PCB-containing equipment (Articles 3 and 4; Annex A, Parts I and II).

a) The production of new PCBs must cease upon entry into force of the Convention.

b) All in-use PCB-containing equipment must be eliminated by 2025. However, a ***specific exemption*** allows all Parties to continue using such equipment provided: they make determined efforts to identify, label and remove this equipment from use; they promote measures to reduce exposures and risk; they use PCBs only in intact and non-leaking equipment and only in areas where risk of environmental release can be minimized and quickly remedied; they forbid use in food and feed production and processing areas; when such equipment is used in populated areas (schools, hospitals, etc.), all reasonable measures are taken to inspect regularly for leaks in equipment and to protect from electrical failure which could result in a fire; PCB equipment is not exported or imported except for the purpose of environmentally sound management of waste; and liquids with more than 0.005 % of PCBs are not recovered for reuse in other equipment. A Party using the PCB specific exemption must also take general measures to prevent or minimize human exposure and releases to the environment of PCBs (Article 3, paragraph 6).

c) The environmentally sound management of wastes containing more than 0.005 % PCBs must be achieved by 2028. The Convention's general management provisions for all POPs wastes (Article 6) must be applied to PCB wastes and these are summarized in Objective 1.5.

d) Parties must endeavour to develop strategies for identifying sites contaminated by POPs, including PCBs, and while remediation is not required by the Convention, if it is attempted, it must be conducted in an environmentally sound manner (Article 6). Note that the issue of developing strategies to identify contaminated sites for all POPs under the Convention is addressed in Objective 1.5.

e) Parties must report to the COP every 5 years on their progress in eliminating PCBs.

78. Brazil has, over the past two decades, put into place a series of legislative and regulatory measures that prohibit the production and trade in PCBs, restrict their disposal and govern their management in equipment that remains in use. Holders of PCB equipment are required to register their ownership. A preliminary inventory based on this register provides a total of about 100,000t of equipment. This inventory does not include any equipment that might have become contaminated with PCBs, and of other articles.

Activity 3.1 Prepare a national inventory of PCBs and equipment containing PCBs and other articles with PCBs

3.1.1 Collect national information on production, import & use of PCBs and equipment containing PCBs

(i) build on national registers of PCB equipment by gathering, using established inventory methodologies, further information on PCBs and equipment containing PCBs present in Brazil, and incorporate preliminary information on equipment that is contaminated with PCBs; (ii) present preliminary inventory to principal stakeholders for review; (v) prepare preliminary inventory in format suitable for national reporting and for inclusion in the NIP; (vi) provide, using priorities set out in Annex A Part II of the Convention, a ranking or risk assessment of items listed in the inventory or of inventory classes.

3.1.2 Collect national information on production, import & use of other articles containing or contaminated with PCBs

(i) establish and implement a methodology for gathering information on products and articles in use that may contain or be contaminated with PCBs; (ii) examine existing schemes for the management of such products and articles; (iii) assess the local and global risks posed by current management practices and make recommendations for improved management to reduce these risks.

3.1.3 Review legal and regulatory frameworks and existing controls and standards relating to PCBs, equipment and articles

(i) review existing legal and regulatory frameworks, controls and standards pertinent to the life-cycle management of PCBs for their conformity with the Convention; (ii) develop recommendations for any revisions or additions necessary to existing frameworks, controls and standards to ensure compliance with the Convention and consistency at national level; (iii) undertake, with key stakeholders a review of the recommendations and develop consensus.

Activity 3.2 Develop mechanisms and a strategy for the sound management and phase out of PCBs, PCB equipment and other articles

3.2.1 Collect information on management and monitoring capacity

(i) gather information on existing capacity and regulatory requirements governing the management and monitoring of PCBs equipment and other articles; (ii) identify barriers that may be preventing the full functioning of these schemes and make recommendations to overcome these barriers

3.2.2 Develop risk-based plans for the sound management, phase out and disposal of PCBs equipment

(i) gather information on existing initiatives to replace PCB equipment in use; (ii) assess the capacity of these initiatives complete the phase-out programme necessary to meet Convention requirements; (iii) examine control or market mechanisms to encourage the phase-out and disposal of PCB equipment, particularly from sites that present special risks, such as, for example, those identified in Annex A Part II of the Convention; (iv) undertake an assessment of resource, capacity building and planning requirements necessary to ensure the complete phase-out and disposal of PCB equipment and other articles by the

deadlines set in the Convention; (v) develop a risk-based plan for the progressive phase out and disposal of PCB equipment; (vi) engage stakeholders in its review and approval.

3.2.3 Develop risk-based plans for the sound management, phase out and disposal of other articles containing or contaminated by PCBs

(i) identify, from the inventory work in 3.1.2, other articles that pose particular risks and for which particular plans are required, (ii) develop appropriate management and phase-out plans; (iii) engage stakeholders in their review and approval;

Objective 4: Measures in relation to the unintentional production of POPs

Rationale:

79. The Convention specifies the following obligations for Parties with regard to unintentionally produced POPs and stresses that these measures are to be taken "at a minimum" to reduce the total releases derived from anthropogenic sources of each of these POPs, with the goal of their continuing minimization and, where feasible, ultimate elimination (Article 5 and Annex C).

a) Parties must, as part of the overall implementation plan required by Article 7, develop an action plan within 2 years of entry into force of the Convention that will:

- evaluate current and projected releases of unintentionally produced POPs, including the development and maintenance of source inventories and release estimates, taking into account the 20 source categories that are identified in the Convention (Annex C);
- evaluate the efficacy of the Party's laws and policies to manage such releases;
- develop strategies to reduce these releases;
- promote education and training on these strategies;
- include a schedule for implementation of the action plan;
- review success of the strategies every 5 years; and
- report on progress in implementing the action plan to the COP (Article 15).

b) Parties must implement the action plan.

c) Parties must promote the application of available, feasible and practical measures to achieve expeditiously realistic and meaningful levels of release reduction or source elimination.

d) Parties must promote development and, where appropriate, require the use of substitute or modified materials, products and processes to prevent the formation and release of unintentionally produced POPs.

e) Parties must address identified 'high potential' sources, including but not limited to the seven sources specified in Annex C Part II, by:

- for existing sources, promoting the use of best available techniques (BAT) and best environmental practices (BEP), and
- for new sources warranting such action, promoting the use of BEP and, as identified in the action plan, requiring the use of BAT, phasing in such BAT requirements for sources in the 7 categories listed in Annex C Part II as soon as practicable, but no later than 4 years after entry into force of the Convention. The Convention defines as "new" any source "of which the construction or substantial modification is commenced at least one year after the date of entry into force" of the Convention for a Party.

f) Parties must address identified 'potential' sources, including but not limited to the 13 specified in Annex C Part III, by promoting BAT and BEP for both new and existing sources.

80. Regular reporting of releases is a feature of the environmental licensing of industry in Brazil. At present, with few exceptions, the releases monitored in this way do not include, necessarily, the

unintentionally produced POPs listed in Annex C of the Convention. For this reason, reliable estimates of total unintentional production of POPs in Brazil are not possible yet. Nevertheless, there have been analytical studies of emissions and Brazil has already established national regulations on emission limits for burning processes - particularly incinerators and clinker cement used in the disposal of hazardous wastes. A priority for Brazil will be to enrich model-based release assessments with source-based analytical data. Nevertheless, preliminary inventory work will rely on available methodologies.

81. The majority of sources listed in Annex C of the Convention are found in Brazil and industrial activity in many of these sectors has contributed significantly to Brazil's economic growth in recent years. In recent years, there has been considerable investment and improvement in technology, particularly in improved production and pollution control technology in larger-scale industries. However, pollution control in medium and small scale industries may be below benchmarks set in developed countries

82. The full project will address these issues by seeking to provide an improved assessment of releases of unintentionally produced POPs, developing appropriate guidance and promotion mechanism to encourage the take up of BAT and BEP, reviewing existing monitoring and enforcement regimes, and formulating an action plan to reduce releases

Activity 4.1 Develop a country assessment of the potential for releases of unintentionally produced POPs from anthropogenic sources

4.1.1 Develop inventories of sources and estimates of releases

(i) develop a preliminary national inventory of the unintentional production of POPs using existing model-based methods, such as the UNEP toolkit, combined with any existing source-based analytical data; (ii) establish, within the overall POPs information management system, data management routines to hold, manipulate, display, model and report direct and proxy inventory data; (iii) develop the national inventory of releases of unintentionally produced POPs; (iv) provide a detailed technical commentary on the modelled results and an assessment of source categories that represent priorities for attention in the action plan for release reduction.

Activity 4.2 Review BAT/BEP guidance and existing regulatory and monitoring capacity

4.2.1 Assess BAT/BEP guidance and determine techniques and practices appropriate, feasible and available in Brazil

(i) review existing guidance on BAT/BEP and determine techniques and practices that can be recommended to form the basis of national requirements for new sources identified as priorities in the action plan; (ii) review existing guidance on BAT/BEP and determine techniques and practices that can be promoted as national requirements for existing sources of releases; (iii) compile information on available, feasible and practical measures to achieve realistic and meaningful levels of release reduction for unintentionally produced POPs including, for example, cleaner production, pollution control techniques, substitute or modified raw materials, products & processes; (iv) draft technical guidance documents for selected key sectors

4.2.2 Review existing relevant policies, and regulatory regimes and make recommendations compatible with the obligations of the Convention

(i) evaluate existing regulatory and licensing regimes against the obligations of the Convention and identify the need to amend these; (ii) propose, as necessary, revised sustainable licensing, monitoring and reporting regimes to implement BAT requirements for priority sources of unintentionally produced POPs; (iii) propose, as necessary, revised sustainable licensing, monitoring and reporting regimes to promote the use of BEP in new sources and BAT and BEP in existing sources of unintentional production; (iv) evaluate the need for establishing consistent national and state standards for unintentional releases, including their sampling and analysis, and make recommendations for inclusion in the NIP ; (v) engage stakeholders, particularly from priority industry sectors, in the review of these recommendations and develop consensus.

4.2.3 Evaluate existing analytical and monitoring capacity and needs

(i) evaluate the analytical and monitoring capacity of Brazil and the human and physical resources, management and analytical standards of existing laboratories against proposed regulatory and licensing

schemes; (ii) develop a plan to strengthen national analytical institutions and capacity in order to establish national analytical capabilities for the adequate monitoring of unintentionally produced POPs; (iii) evaluate the need for establishing consistent national and state standards for the monitoring, sampling and analysis, and make recommendations for inclusion in the NIP.

Activity 4.3 Develop measures for the progressive reduction of releases and elimination of sources of unintentionally produced POPs

4.3.1 Formulate strategies and an action plan for the progressive reduction of releases of unintentionally produced POPs from anthropogenic sources

(i) assess the social and economic impacts of releases of unintentionally produced POPs and of proposals from activities in 4.1.2 and 4.1.3 and determine feasible and appropriate measures; (ii) develop strategies for unintentionally produced POPs reduction and elimination; (iii) prepare an action plan as part of the overall NIP; (iv) prepare an investment portfolio, including estimates of incremental costs incurred, to implement the strategies in the action plan relating to key priority industry sectors; (v) hold meetings to raise stakeholder awareness and to gain their support for the action plan.

Objective 5: Measures in relation to National Infrastructure to Implement the Convention

Rationale:

83. The Convention specifies the following obligations for Parties relating to general policies and activities that will contribute to the efforts of Parties to reduce and/or eliminate the releases of POPs.

84. Each Party must:

a) where it has in place or introduces regulatory and assessment schemes for industrial chemicals and/or pesticides, take into consideration the criteria in Annex D for screening candidates for addition to Convention when conducting assessments of (Article 3):

- new substances, to take measures to regulate with the aim of preventing the production and use of new POPs; and
- in-use substances, to identify potential POPs for possible risk management.

b) participate in evaluating data and information on chemicals that will be nominated by Parties for addition to the Convention by (Article 8):

- developing and submitting dossiers on candidate chemicals;
- evaluating information on nominated chemicals; and
- participating in the operation of the POPS Review Committee that will be established at the first meeting of the Conference of the Parties to review nominations submitted by Parties;

c) designate a national focal point to facilitate or undertake information exchange on the reduction or elimination of the production, use and release of POPs and alternatives to POPs, while taking measures to protect information that is mutually agreed by Parties to be confidential (Article 9);

d) within its capabilities, promote and facilitate the following relating to public information, awareness and education on POPs and alternatives to POPs (Article 10):

- awareness among policy and decision makers;
- public access to available and up-to-date information;
- development and implementation of educational and public awareness programs;
- public participation and input in developing and implementing measures to address POPs;
- training and development programs for stakeholders including workers, scientists, educators and technical and managerial personnel;
- development and exchange of educational and public awareness materials at the national and international levels

- development and implementation of education and training programmes at the national and international levels.
- encouragement of industry and professional users to promote and facilitate provision of information on all relevant aspects of POPs at the national and other levels;
- usage of a range of approaches to communicate information on POPs, such as information centres at national and regional levels; and
- development of mechanisms, such as pollutant release and transfer registers (PRTRs), to collect and disseminate information on estimates of the annual amounts of the 12 POPs that are released or disposed of;

e) within its capabilities, and at the national and international levels (Article 11):
- encourage and/or undertake research, development, monitoring and cooperation relating to the following subjects for POPs, alternatives to POPs and candidate POPs (Article 11):
  - sources and releases to environment,
  - presence, levels and trends in humans and the environment,
  - environmental transport, fate and transformation,
  - effects on human health and the environment,
  - socio-economic and cultural impacts,
  - release reduction and/or elimination; and
  - methods for source inventories and for analysis of POPs,
- support and further develop international programmes, networks and organizations to define, conduct, assess and finance research, data collection and monitoring;
- support national and international efforts to:
  - strengthen national scientific and technical research capabilities, particularly in developing countries and countries with economies in transition, and
  - promote access to and exchange of data and analyses;
- undertake research work on alleviating effects of POPs on reproductive health;
- take into account concerns and needs, particularly financial and technical resources, of developing countries and countries with economies in transition, and cooperate in improving their capability to participate in these efforts;
- make the results of these research, development and monitoring activities accessible to the public on a timely and regular basis; and
- encourage and/or undertake cooperation with regard to storage and maintenance of pertinent information generated from research, development and monitoring.

f) submit reports to the COP on (Article 15):
- measures it has taken to implement the Convention;
- the effectiveness of the measures taken;
- data related to production and trade in intentionally produced POPs and wastes containing POPs.
- experiences in using DDT for disease vector control (every 3 years);
- data related to production or use of HCB or DDT as a closed-system site-limited intermediate;
- progress in eliminating PCBs (every 5 years); and
- the success of its strategies in reducing releases of unintentionally produced POPs (every 5 years).

Sustainable and integrated system for managing Brazil's obligations

85. A primary objective of national implementation planning is to establish a sustainable and integrated system for managing Brazil's obligations to the Convention. Brazil has already established an interministerial commission (CONASQ), which oversees the implementation of the National Chemical Safety Programme. CONASQ is chaired by MMA, which also provides the secretariat, and comprises representatives from more than 20 government entities and non government organizations

86. Activity 5.1 set out below represents those actions necessary to ensure that this unit is equipped and capable of performing these functions beyond the life of this project.

Information Management System

87. Important to achieve these management functions will be the establishment of an information management system capable of assimilating country data on the production, use, trade, disposal and release of POPs chemicals or of products containing POPs chemicals. This information management system will also require functionality to aid the interpretation and analysis of the data contained within it, and to provide a variety of review and report contributions as required by the Convention under, in particular, Articles 3, 4, 5, 7, 9 and 15. Brazil already has significant systems for the management of data arising from reporting requirements from various regulatory instruments pertaining to chemicals, industry and the environment. The project will seek to exploit and enhance existing systems wherever possible and will work closely with key stakeholders in this regard.

Information exchange, public access to information, education and awareness

88. An important aspect of the Stockholm Convention is its emphasis, set out in Articles 9 and 10, on information exchange, public access to information, and the building of educational programmes facilitating public participation and awareness, particularly amongst women and children who may be most at risk.

89. Information exchange between Brazil and other Parties to the Convention directly or through its Secretariat will form an important function of national management and information system to be established during the project. This system will ensure that Brazil meets it obligations in respect of reporting requirements and other substantive inputs to the Conference of Parties and its review and expert groups.

90. The emphasis in the Convention on public access to information and education is not intended merely to inform members of the public of the risks they face but to build active public participation in efforts to reduce and ultimately eliminate the threat from POPs chemicals. Public ownership of schemes to provide improved management of POPs chemicals and to develop safe alternative techniques is recognised as an important aspect of convention compliance.

Legislative framework

91. Brazil has an established infrastructure of environmental and chemicals management legislation, administration regulation, national standards and norms. None of this regulatory framework was established specifically with the obligations of the Stockholm Convention in mind but many of its provisions make reference to chemicals included in the convention. It follows that a detailed review of this framework is required to ensure that obligations under the convention are met. The convention requires Parties to address the regulation of intentionally and unintentionally produced POPs in different ways so that it is appropriate that the need to modify or add regulation is considered within each of the work packages of this project. Nevertheless, recommendations will need to be coordinated and integrated to ensure that they are mutually consistent and compatible with regulatory frameworks for other multinational chemicals and environmental agreements and with national sustainable development policies and strategies.

Research and Development

92. The Convention provides, in Article 11, indications of topics that Parties should address in defining research, development and monitoring objectives. During the development of the NIP, Brazil's existing capabilities to address these objectives will be assessed. Proposals to strengthen the nation's research and monitoring infrastructure and build capacity will be developed and included in the NIP.

93. Brazil will require research and development both to support policy making in relation to its full participation in the Conference of Parties, its subcommittees and expert groups, and to support national management activities, addressing areas of particular concern and providing regular and systematic monitoring.

Activity 5.1 Develop and establish national management system for Stockholm Convention

5.1.1 Establish national management system

(i) establish a sustainable capacity within the SMCQ/MMA to manage the implementation of the NIP to ensure Brazil's compliance with the Stockholm Convention; (ii) determine and formalise appropriate linkages among all interested relevant stakeholders providing monitoring information, regulatory control and other services; (iii) conduct training in these entities to build capacity and understanding of national requirements for Convention compliance.

5.1.2. Establish Information Management System

(i) examine existing IT architecture within leading organisations; (ii) determine inventory and reporting requirements of the Convention; (iii) assess results and actions of other activities (described above) relevant to information needs; (iv) determine remaining information needs; (v) determine existing data holdings relevant to POPs within other government departments and non-government institutions; (vi) encourage, through CONASQ and other interministerial commissions, cooperation between institutions gathering information that may be relevant to the reporting requirements of the Convention so that this can be exchanged with the information management system; (vii) establish data management infrastructure capable of input, storage modelling and reporting of national and provincial information in formats, such as PRTR, compatible with Convention requirements.

Activity 5.2 Develop national policy, legal, regulatory and promotional frameworks to meet Convention requirements

5.2.1 Establish legal and regulatory requirements in relation to national sustainable development policies, national environmental protection plans, country assistance strategies, Federal laws, administrative regulations and standards

(i) integrate results and recommendations of regulatory reviews conducted in all activities of the project and determine requirements with regard to national sustainable development policies, national environmental protection plans, country assistance strategies, federal laws and administrative regulations; (ii) examine the recommendations for consistency, conformity with Convention requirements and Government policies, plans and laws; (iii) examine the recommendations for conformity with other multilateral environmental agreements to which Brazil is Party;

5.2.2 Assess opportunities for management and market instruments to address Convention requirements

(i) examine the opportunities, and develop recommendations, for management- and market-based instruments to enhance the implementation of Convention requirements within industry; (ii) assess opportunities to encourage industry compliance with Convention objectives and obligations through voluntary approaches, such as Clean Production or eco-labelling initiatives.

Activity 5.3 Develop Public awareness and education programme and materials

5.3.1 Establish National Information System for POPs

(i) review requirements for the provision of information to stakeholders, including the public, and existing public awareness infrastructure, such as ministry public education departments and civil society interest groups, in order to develop an information dissemination and awareness raising strategy integrated with actions arising from other Objectives of this project; (ii) establish a national information system and determine appropriate arrangements for establishing a permanent information network providing public access to POPs information consistent with Article 10 of the Convention; (iii) establish or enhance an internet presence for the purpose of disseminating information related to the objectives of the Stockholm Convention and related multinational chemicals management agreements; (iv) develop generic materials, suitable for dissemination by a variety of printed, broadcast or virtual media, to raise awareness of issues related to the objectives of the Stockholm Convention and related multinational chemicals management agreements.

5.3.2 Increase public awareness of POPs issues related to human health

(i) determine, in conjunction with CONASQ and other stakeholders, in particular women's groups, appropriate educational schemes to raise the awareness of the hazard posed by the inappropriate or illegal use and management of POPs chemicals; (ii) devise appropriate programmes and materials to promote the safe handling of hazardous chemicals, the use of environmentally sound alternatives, integrated disease management techniques minimising or eliminating the need for hazardous chemicals. and discouraging POPs use; (iii) conduct training programmes for key groups

5.3.3 Increase government, industry and public awareness of the unintentional production of POPs and of hazards arising from inappropriate disposal of POPs wastes

(i) develop, in conjunction with CONASQ and other stakeholders, appropriate educational programmes and materials to raise the awareness of

- industry of the hazards posed by the unintentional production and release of POPs and of opportunities to promote the improved performance of industry.
- of administrations, industry and the public of the hazards posed by the inappropriate disposal of wastes comprising POPs or products containing POPs and promoting environmentally sound waste management
- conduct training for key stakeholders

Activity 5.4 Develop R&D and monitoring strategies

5.4.1 Assess the human and environment burden of POPs in Brazil

(i) compile available information on POPs in the Brazilian population, particularly in women and children, and in the environment - water, soil and food; (ii) hold an expert workshop or workshops to review the information collected and determine issues of human health and/or environmental concern that may influence the ranking of priority items identified in other activities; (iii) prepare a preliminary assessment of health and environmental impacts posed by POPs to guide future actions.

5.4.2 Develop R&D and monitoring strategies to support Convention implementation

(i) examine national research and development facilities capable of undertaking specific research programmes as well as systematic and regular investigations thereby assisting Government to play a full role as a Party to the Convention particularly in regard to assess, incorporating results from other activities, and provide recommendations for strengthening national R&D programmes leading to:

- the testing, review and screening of new pesticides and new industrial chemicals, including POPs alternatives and candidate POPs, to ensure compliance with Article 3 Para 3, Article 11 and Annexes D, E, and F of the Convention;
- the definition of Best Available Techniques (BAT) and Best Environmental Practices (BEP) to be required or promoted in compliance with Article 5 and Annex C;
- the understanding of POPs use, trade, release, disposal, environmental occurrence and impact;
- improved methodologies for preparing regular POPs inventories;
- improved techniques for management and disposal of POPs and products containing POPs;
- alternative environmentally-sound products and practices;
- the removal of barriers to POPs elimination;
- improved disposal techniques; and
- improved methodologies for the identification and characterisation of land contaminated by POPs to ensure compliance, in particular, with Articles 5, 6 and 11.

Objective 6: Preparation and endorsement of the National Implementation Plan and National Reports

Rationale:

94. Each Party must develop and endeavour to implement a national plan for the implementation of its obligations under the Convention (Article 7) and:

- include an action plan to identify, characterize and address releases of unintentionally produced POPs and to facilitate implementation of all the Convention requirements relating to these POPs (Article 5 and Annex C);
- include a specific action plan for DDT if the Party will produce and/or use DDT for disease vector control as provided for under the acceptable purposes provisions of the Convention (Article 3 and Annex B);
- submit this plan to the COP within 2 years of entry into force of Convention for the Party;
- review and update this plan on a periodic basis as specified by the COP;

- cooperate with other Parties, either directly or through intergovernmental organizations, and consult with national stakeholders in developing, implementing and updating plans; and endeavour to utilize and integrate these plans in national sustainable development strategies;

95. Furthermore, each party shall report to the Conference of the Parties on the measure it has taken to implement the provisions of the Convention and on the effectiveness of such measures in meeting the objectives of the Convention (Article 15). National reporting to the Secretariat shall include:

- Statistical data on its total quantities of production, import and export of each of the chemicals listed in Annex A and Annex B or a reasonable estimate of such data; and
- To the extent possible, a list of the states from which it has imported each such substance and states to which is has exported each such substance.

96. At its first meeting, the Conference of the Parties decided (SC-1/22) that each Party shall submit its first report by 31 December 2006, for consideration by the Conference of the Parties at its third meetings in 2007, and shall submit its subsequent report every four years thereafter. That meeting also adopted the revised format for reporting as set out in the Annex to SC-1/22.

97. Brazil ratified the Convention on 16 June 2004 and so is obliged to submit an initial NIP by 2006. This will be achieved largely by using the existing data compiled during the PDF-B phase of this project and completed by initial actions in this Full Project phase. It is recognised, however, that the information currently available does not provide a complete assessment of the country situation with regard to POPs and that further investigations are necessary. For this reason, Brazil proposes to prepare an updated and more comprehensive NIP following the execution of the activities set out in this project. This revised NIP will be developed for submission for Government endorsement before transmission to the Conference of the Parties in 2009.

98. The project team will have responsibility for drafting the National Report pursuant to Article 15 and for the preparation of the National Implementation Plan to be transmitted by Brazil to the Conference of Parties. The latter will involve the coordination and compilation of the outputs of the various Objectives of the project and their integration into a comprehensive plan.

99. In drafting the NIP, the project team will make full use of the guidance developed by UNEP and the World Bank that was adopted by the first Conference of the Parties (SC-1/12)

100. The team will also be responsible for the management of a process to review and endorse the NIP prior to its transmission to the Conference of Parties. This is likely to involve the development of consensus amongst stakeholders in the various technical areas of the implementation plan, and its submission to and approval by Government.

Activity 6.1 Draft the provisional NIP and the National Report required under Article 15 of the Convention

6.1.1 Complete provisional NIP and transmit to COP

(i) integrate existing data gathered during PDF-B phase and prepare provisional NIP according to guidance; (ii) submit for endorsement and transmission to the COP in 2006

6.1.2 Draft the National Report

(i) integrate existing chemicals information and prepare national report on progress toward Convention compliance for submission to the Conference of the Parties; (ii) develop, within the overall POPs information management system, routines to generate national reports;

Activity 6.2 Draft the National Implementation Plan

6.2.1 Draft the National Implementation Plan

(i) integrate the existing chemicals profile, inventory reports, priority assessments, strategies and action plans from all Objectives into a comprehensive draft NIP suitable for transmission to the Conference of the Parties in accordance with Article 7 of the Convention and in a format consistent with guidance adopted by

the Conference of the Parties; (ii) consolidate national priorities and their resource needs to form an implementation strategy.

6.2.2 Undertake Socio-economic impact studies and cost-benefit analyses

(i) study using parameters such as those included in Annex F of the Convention, and in association with activities set out above, the social and economic impact of proposed action plans, alternatives, regulatory requirements and voluntary schemes, to assess their incremental costs and benefits; (ii) undertake cost-benefit analysis, based upon estimated incremental costs of proposed actions and potential alternatives to determine the most cost-effective approaches towards Convention compliance; (iii) present the recommendations to stakeholders for review;

6.2.3 Review and Endorse National Implementation Plan

(i) conduct a detailed review of the draft NIP and its component implementation plans with experts and representatives of principal stakeholder groups; (ii) correct, amend and modify the draft NIP to take account of review recommendations; (iii) hold a meeting, or meetings, with principal stakeholders at national and state levels to introduce, and gain endorsement for the NIP, its component implementation plans, and priority actions; (iv) disseminate draft NIP to relevant government institutions to gain comments and support of the NIP; (v) correct, amend and modify the draft NIP to take account of recommendations from these government institutions; (vi) submit the NIP for Government endorsement; (vii) prepare the final NIP for publication in both Portuguese and English; (viii) submit the final NIP to the appropriate authorities for transmission, via the Convention Secretariat, to the Conference of Parties

4.0Risks, Sustainability and Commitments

4.1 Possible Risks

(a) Political willingness

101. The ultimate long-term success of the Stockholm Convention depends the willingness of its Parties to meet their obligations. For developing countries, such as Brazil, this entails considerable efforts: to develop and enforce regulatory frameworks; to encourage and promote change amongst users in many sectors of government, industry and society; to build capacity and strengthen institutions; and to manage a transition to BAT and BEP across many sectors of industry and society. These changes, prompted by the Convention, are nowhere trivial.

102. Brazil, having long established programmes related to chemicals safety, environmental licensing of industry, and of monitoring emissions from industry and waste management, and in being one of the first countries to sign and ratify the Convention, continues to demonstrate its strong commitment to the national and global objectives of the Convention.

(b) Participation by Stakeholders

103. Many of the activities set out in this proposal require the willing participation and coordinated efforts of a broad range of stakeholders. In some countries, interministrial cooperation and broader coordination with civil society groups and industry is problematical and can put in jeopardy the ability of a project team to develop a NIP that can be broadly endorsed.

104. This difficulty has already been overcome in Brazil that has a commission (CONASQ) representing over 20 government entities and NGOs, representing industry, civil society and academia. This body ensures the coordination of chemical safety programmes, including the implementation of multilateral environmental agreement including the Stockholm Convention.

4.2 Sustainability

105. Sustainability implies not only the commitment of Brazil and its national executing agency to continue to make provision for Convention implementation, but also on the development of a NIP that provides initiatives to mainstream the objectives of the Stockholm Convention into the nation's broader development policies and strategies, and on the engagement of a wide range of stakeholders.

106. This is ensured in Brazil by many features of the implementation arrangement for the project. The responsibility for NIP development is established within the SMCQ/MMA reporting to the Direction for Environmental Risks Management, the National Technical Focal Point of the Convention in Brazil. Secondly, the project and the subsequent implementation of the NIP will be accompanied by CONASQ that has broad representation allowing integration with national policies and programmes and coordination both across government and beyond to the principal NGO groups.

107. The national executing agency, SMCQ/MMA has considerable experience in the development, implementation and managerial oversight of projects and programmes funded by various MEAs and their funding mechanisms, including the GEF. It has wide experience of collaboration with various Intergovernmental Organizations, bilateral donors and enterprises in Brazil. It has acted successfully as the national implementing agency for the PDF-B phase of this project.

4.3 Commitments

(a) Commitment of Brazil

108. Brazil signed the Convention on the date when it opened for signature and ratified the Convention on 16 June 2004. Brazil recognises its obligation, under Article 7 of the Convention, to develop and transmit a National Implementation Plan (NIP) to the Conference of Parties (CoP) within two years of entry into force of the Convention.

109. Brazil is committed to start the compilation of the NIP as soon as the necessary technical and financial support from the international community is provided in accordance with Article 13 of the Convention. A preparatory project, to identify the requirements for developing the NIP, has been successfully implemented during 2005 and 2006 by MMA with the assistance of the United Nations Environment Programme (UNEP) under a Project Development Facility Block B (PDF-B) grant from the Global Environment Facility (GEF).

(b) Commitment of UNEP

110. UNEP is committed to assisting its developing country Member States in regard to the Stockholm Convention. UNEP is one the GEF implementing agency and the GEF has approved Enabling Activities proposals submitted by UNEP for 58 countries, including the pilot project of work in 12 countries. In addition, proposals for Brazil and the Russian Federation that have opted to undertake NIP development via the GEF full project cycle, have been approved. UNEP is also implementing or developing a range of methodological development and demonstration projects geared to support Convention implementation. UNEP has committed considerable effort to build this assistance programme. This commitment is based on a clear understanding that these activities are compatible with UNEP's mandate and corporate strategy and lead towards the Millennium Development Goals.

111. Many of these Enabling Activities projects are now reaching completion. UNEP is now taking up key issues of common interest at global or regional levels to assist country teams to implement the actions they have defined as priorities in their National Implementation Plans.

5.0Implementation Arrangements, Monitoring and Evaluation

5.1 Implementation arrangements

112. In common with other NIP development projects, this project will be executed nationally by the MMA. It will be implemented, at the request of the MMA, by UNEP.

(a) The Ministry of the Environment (MMA)

113. The MMA, is the central body and hub of the Brazilian National Environmental System and is responsible *inter alia* for national environmental and water resource policies; for developing strategies, mechanisms and economic and social instruments to improve the quality of the environment and natural resources; and for policies to integrate industrial production and the

environment. Within the MMA the ***Secretariat for Climate Change and Environmental Quality (SMCQ)*** has a mandate pertaining to pollution; environmental degradation and hazards; environmental impacts and licensing; wastes harmful to health and the environment; urban environmental policy; and to integrated management of the coastal and marine environments.

114. Within SMCQ, the ***Direction for Environmental Risks Management*** is responsible *inter alia*, as the National Technical Focal Point of the Stockholm Convention in Brazil, for coordination of its implementation; and for management of activities and personnel engaged in its implementation.

115. The ***National Commission on Chemical Safety (CONASQ)*** was established by MMA administrative act 19/2000 as an interministerial commission charged with institutional liaison and fostering discussion on chemical safety in order to implement the National Chemical Safety Programme (PRONASQ). It comprises more than 20 government and non-government institutions and plays an important role in promoting the necessary arrangements to the implementation of international chemicals agreements including the Stockholm Convention.

116. Brazil's National Implementation Plan will be developed by a dedicated national team reporting to the Direction for Environmental Risks Management. They will be supported by national and international experts as necessary and will be developed in consultation with other interested Federal Ministries and CONASQ.

117. Brazil invited UNEP to act as GEF Implementing Agency for the development of the NIP and opted to undertake this work in two phases through the full GEF project cycle rather than by taking up the so-called 'Enabling Activities'. During the full project proposed here, UNEP will continue to assist Brazil to implement the activities set out in this proposal and will monitor and supervise the project on behalf of the GEF.

118. Brazil has won approval for pipeline entry of a GEF co-financed project entitled 'National Programme for the Integrated Management of Contaminated Sites' to be implemented by the World Bank. This project is principally geared towards the establishment of a sustainable financial mechanism supporting remediation and for pilot remediation at selected demonstration sites. Although largely complementary to this proposal, some tasks may overlap. UNEP and the World Bank will collaborate with Brazil during the detailed implementation planning of the two projects to eliminate any duplication and ensure close coordination between them. This is facilitated by their common management within the SMCQ.

119. The SMCQ, under letter of agreement with UNEP, will manage all local elements of the programme including, for example, the recruitment and supervision of local expert subcontractors preparing component technical investigations and recommendations, and the drafting of the project outputs. The SMCQ will prepare periodic progress and financial reports to UNEP.

(b) UNEP's Relevant Experience

120. UNEP is the overall coordinating environmental organization of the United Nations system. Its mission is to provide leadership and encourage partnerships in caring for the environment by inspiring, informing and enabling nations and people to improve their quality of life without compromising that of future generations. In accordance with this mandate, UNEP works to observe, monitor and assess the state of the global environment, to improve our scientific understanding of how environmental change occurs, and to promote action-oriented national policies and international agreements to manage environmental change.

121. UNEP's capacity building work thus centres on helping its member states to strengthen environmental management in diverse areas in freshwater and land resource management, the conservation and sustainable use of biodiversity, marine and coastal ecosystem management, and cleaner and sustainable industrial development.

122. UNEP administers a number of multilateral environmental agreements. Those pertinent to sound chemicals management include the Vienna Convention's Montreal Protocol on Substances that Deplete the Ozone Layer; the Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and their Disposal, the Convention on Prior Informed Consent procedure for

Certain Hazardous Chemicals and Pesticides in International Trade (jointly with FAO), the Stockholm Convention on Persistent Organic Pollutants, and, most recently, the Strategic Approach to International Chemicals Management (Jointly with WHO).

123. UNEP Chemicals, a component branch of the Division of Technology, Industry and Economics, is the centre for all chemicals-related activities of the United Nations Environment Programme. It provides capacity building, scientific and technical support to member states in respect of chemicals management and has promoted and supported the development of many of the chemicals MEAs listed above. It is a founder member of the IOMC.

124. UNEP is an Implementing Agency of the GEF. A dedicated division, the Division of GEF Coordination (DGEF) supervises the implementation of its project portfolio, extending across all the Focal Areas of GEF operations. DGEF supervises the largest portfolio of GEF-funded Enabling Activities assisting 58 countries[12], almost half of all countries receiving GEF assistance, to develop their NIPs for the Stockholm Convention. UNEP is also assisting Brazil and the Russian Federation to develop its NIP via the GEF full project cycle.

125. In addition to the Enabling Activities, UNEP and its partners are developed a number of proposals to implement priority actions arising from the national plans and is executing projects:

- to identify best approaches for PCBs management and disposal (W Africa);
- to identify alternative methods of disease vector control obviating the need for DDT;
- to identify approaches to minimize or eliminate POPs pesticide use and to prevent pesticide leaching to sensitive environmental compartments;
- to engage civil society in the promotion of public awareness and education with respect to the Stockholm Convention and the management of POPs

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[12] Including 12 countries undertaking enabling activities as part of the 'pilot project to develop NIPs'

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5.2 Monitoring and Evaluation

126. Day-to-day management and monitoring of project activities, and any consultants and subcontractors recruited to undertake them, will be the responsibility of the project team within SMCQ and reporting to the Direction for Environmental Risks Management. The team will be responsible for delivering the technical outputs from individual objectives, and coordinating and compiling these to form the NIP.

127. During the course of the project the team will also be responsible for the preparation of regular progress and financial reports, and for the preparation of forward plans and budgetary estimation. The timely preparation and submission of mandatory reports forms an integral part of the monitoring process. Reporting requirements are summarized in the table 10.

Table 10: Progress, Monitoring and Evaluation Reports

Report and Content	Format	Timing	Responsibility
Inception report			
Detailed implementation plan for progress monitoring	Agreed format allowing progress tracking	Following inception workshops	Project team SMCQ/MMA
Progress reports			
Documents progress & completion of activities; Describes progress against annual work plan; Reviews implementation plans, summarizes problems and adaptive management; Provides activity plans for following period; Provides project outputs for review	UNEP Progress Reporting Formats;	Quarterly, within 30 days of each reporting period	SMCQ/MMA project management
Financial Reports			
Documents project expenditure according to established project budget and allocations; Provides budgetary plans for following reporting period; Requests further cash transfers; Requests budget revision as necessary; Provides inventory of non-expendable equipment procured for project	UNEP Financial reporting formats; Inventory of non-expendable equipment	Quarterly, within 30 days of each reporting period	SMCQ/MMA project management
Annual Progress Reports			
Provides consolidated review of progress and outputs of project actions; Describes progress against annual work plan; Highlights project achievements, difficulties and measures taken to adapt; Provides progress plans and budgetary requirements for the following reporting period; Provides general source of information for general project reporting	UNEP Progress Report model	Annual, within 45 days of each reporting period	SMCQ/MMA project management
Financial Audit			
Audit of project accounts and records	Approved audit report format	Annual and at project completion	Independent auditor
Co-financing report			
Reports co-financing provided to the project; Reviews co-financing inputs against GEF approved financing plan	UNEP reporting format	Annual	SMCQ/MMA project management
Project Implementation Review (PIR) reports			
Summary implementation review	GEF M&E format	Annual	UNEP Project Manager
Terminal report			
Review of effectiveness of the project, its technical outputs, lessons learned and progress towards outcomes	UNEP reporting format	At project completion	SMCQ/MMA project management UNEP-GEF
Terminal Evaluation			
Provides detailed independent evaluation of project management, actions, outputs and impacts	GEF M&E format	At project completion	Independent Evaluator UNEP GEF SMCQ

128. The ***Inception report*** will include a detailed narrative on the institutional roles and responsibilities of the project partners, identify stakeholder engagement commitments developed during the inception workshops, set out progress on project establishment and start-up activities, provide a detailed implementation plan suitable for progress tracking purposes. The report will be submitted

to SMCQ and UNEP-GEF and used as a benchmark against which regular progress reports are reviewed.

129. ***Progress reports*** will be prepared by the project coordinator in English within 30 days of the end of each quarter. Reports will be prepared using the standard UNEP format attached in Appendix 6. The reports will be approved by the national executing agency (SMCQ) and submitted to UNEP-GEF. These reports form the principal tools of regular project monitoring and will contain:

- an account of actual implementation activities undertaken during the reporting period and an assessment of progress against the implementation plan
- an identification of barriers to project implementation and recommendations for corrective actions during the following period, including any revision to the implementation plan
- a detailed and costed work plan for the following reporting period, including a forward project of the status of funds held locally and, when necessary, a request for further cash transfers to the project
- an updated inventory of non-expendable equipment and items of attraction procured for the project
- copies of project meeting reports and participants lists, technical outputs submitted to the project team

130. ***Financial reports (National Project Expenditure Accounts)***: will be prepared by the project coordinator within 30 days of the end of each quarter. Reports will be prepared in US$ using the project budget codes and in the standard UNEP format attached in Appendix 6. They will contain an account of actual expenditure in support of the activities undertaken. The reports will be approved by a duly authorised official of the SMCQ and submitted to UNEP-GEF.

131. ***Financial audit***: In addition to the periodic financial reporting described above, SMCQ should report the total expenditures incurred during each year ending 31 December, certified by a duly authorised official, covered by a signed audit opinion prepared by a recognized firm of public accountants. This annual record and audit should be dispatched to UNEP within 180 days (i.e. by 30 June). In particular, the auditors should be asked to report whether, in their opinion:

- Proper books of account and records have been maintained;
- All project expenditures are supported by vouchers and adequate documentation;
- Expenditures have been incurred in accordance with the objectives outlined in the project document;
- The Expenditure reports provide a true and fair view of the financial condition and performance of the project

132. A ***terminal financial audit*** is required within 180 days of the completion of the project. The SMCQ will supply UNEP with a final statement of account in the same format as for the periodic financial statements, certified by a recognized firm of public accountants. If requested, the SMCQ shall facilitate an audit by the United Nations Board of Auditors and/or the Audit Service of the accounts of the project.

133. *Unspent funds*: Any portion of cash advances remaining unspent or uncommitted by the SMCQ on completion of the project will be reimbursed to UNEP within one month of the presentation of the final statement of accounts. In the event of any delay in such reimbursement, the SMCQ will be financially responsible for any adverse movement in the exchange rates.

134. ***Co-finance report***: The Executing Agency will report annually on the co-finance received and used to advance the project activities. The report will be prepared using the format set out in Appendix 6 and will show:

- The amount of co-financing realized compared with the amount of co-financing committed to at the time of project approval, and

- Co-financing reporting by source and by type[13].

135. ***Annual Progress reports*** will be prepared by the project coordinator in English at the end of each 12 month period of project implementation. These will provide a detailed synopsis of project progress and status, administrative, technical and financial, and form the basis for annual reviews with CONASQ and tripartite review meetings between the project team, SMCQ and UNEP-GEF. The timely provision of the annual progress reports and the tripartite review meetings will allow the preparation of the ***Project Implementation Review (PIR)***. The PIR is an annual monitoring process mandated by the GEF and for which the independent GEF M&E unit provides the scope and content. Individual PIRs are collected, reviewed and analysed by UNEP-GEF by focal area, theme and region to extract common issues, lessons learned and good practices. Focal area PIRs are discussed at the GEF Interagency Focal Area Task Forces with consolidated reports by focal area then being transferred to the independent GEF M&E unit.

136. The ***Terminal Report*** is prepared by the project team and the national executing agency (SMCQ) in English immediately within the 60 days following the end of project implementation. It is submitted to UNEP-GEF, to the Chief, Budget and Financial Management Service, and to the Chief, Programme Coordination and Management Unit, using the format given in Appendix 6. It provides a review of the effective operation of the project and of its achievements in reaching its designed outputs. The report will set out lessons learned during the project and assesses the likelihood of the project achieving its design outcomes. It provides a basis for the independent ***Terminal Evaluation*** of the project. This evaluation reviews the impact and effectiveness of the project, the sustainability of results and whether the project has achieved its immediate, development and global objectives.

137. Indicators for the evaluation of the effective operation of the project are given in the Table 11 below.

Table 11: Indicators for evaluation of effective operation of the project

Indicator	Means of verification
Quarterly and annual progress and financial reports prepared in a timely and satisfactory manner	Arrival of reports at UNEP
Performance targets, outputs, and outcomes are achieved as specified in the implementation plan and any agreed revisions to it	Progress reports
Deviations from the implementation plans are corrected promptly and appropriately.	Work plans, minutes of CONASQ meetings
Quarterly financial reports are timely and accurate	Arrival of reports at UNEP
Disbursements are made on a timely basis	IMIS system of UNEP and Bank statements of national executing agency
Procurement is achieved according to procurement plan and reflected in non-expendable equipment inventory	Progress reports
Requests for deviations from approved budgets are submitted in timely manner	Timely submission of revised budget to UNEP for approval
Audit reports and other reviews showing sound financial practices	Audit reports

[13] Sources include the agency's own co-financing, government co-financing and contributions mobilized for the project from other multilateral agencies, bilateral development cooperation agencies, NGOs, the private sector, and beneficiaries.
Types of co-finance include Cash (grants, loans, credits, and equity investments) and In-Kind resources (limited to those dedicated uniquely to this project and valued as the lesser of the cost and the market value of the required inputs they provide for the project and monitored with documentation available for any evaluation or project audit

138. ***Technical outputs and milestones*** identified for the project are given in table 12 below. It is likely that the bulk of these will be prepared by national experts or expert groups contracted by the project management team. The project has been designed to allow for the review and approval of draft outputs by key stakeholders to ensure country ownership of products. This is particularly important as most project outputs are country assessments and action plans that represent components of the National Implementation Plan and will require implementation in the period following the completion of this project. The project team and SMCQ have a first-line supervisory role with regard to project consultants and thus to the review and monitoring or their outputs. CONASQ, as an interministerial commission also including important NGOs, could also review and make recommendations regarding the technical outputs of the project at key milestones defined in the implementation plan.

139. The Executing Agency will submit to UNEP three copies in draft of any substantive project report(s) and, at the same time, inform UNEP of any plans it may have for the publication of that text. UNEP will give the Executing Agency substantive clearance of the manuscript, indicating any suggestions for change and such wording (recognition, disclaimer, etc.) as it would wish to see figure in the preliminary pages or in the introductory texts. It will equally consider the publishing proposal of the Executing Agency and will make comments thereon as advisable.

140. UNEP may request the Executing Agency to consider the publication on a joint imprint basis. Should the Executing Agency be solely responsible for publishing arrangements, UNEP will nevertheless receive an agreed number of free copies of the published work in each of the agreed languages, for its own purposes.

Table 12: Outputs and milestones from Project Activities

Component/Activity	Output/Milestone	Date
Component 2: Measures in relation to POPs products and articles in use		
2.1 Stockpiles, products and articles in use	Recommendations for revision of regulations and management guidelines	7th month
	Inventory of stockpiles, products and articles	8th month
2.2 POPs wastes management	Inventory, regulatory review and draft national strategy for POPs wastes management	14th month
2.3 Identification of sites contaminated by POPs	Inventory and risk assessment of sites	18th month
	Data management system operational	9th month
2.4 Legal and regulatory frameworks and management guidance	Recommendations for revised regulation and management for contaminated sites	14th month
Component 3: Measures in relation to PCBs		
3.1 National inventory of PCBs	National inventory of PCBs, and equipment containing PCBs	14th month
	Preliminary inventory of other articles with PCBs	11th month
3.2 Sound management of PCBs	Risk-based plans for the sound management, phase-out and disposal of PCBs equipment	20th month
	Risk-based plans for the sound management, phase-out and disposal of other PCBs articles	20th month
Component 4: Measures in relation to the unintentional production of POPs		
4.1 Country assessment of the potential for releases	Inventory of sources, estimate of releases and technical commentary setting out priorities for attention in action planning	11th month
4.2 Review BAT/BEP guidance and regulatory, monitoring capacity	Technical guidance for key sectors	14th month

	Proposals for revised licensing, monitoring and reporting regimes requiring BAT or promoting BAT/BEP	18th month
	Plan to strengthen national analytical and monitoring capacity	13th month
4.3 Measures for the progressive reduction of u-POPs releases	Action plan to reduce releases of u-POPs	18th month
	Investment portfolio including incremental cost calculations to implement action plan	20th month
Component 5: Measures in relation to national infrastructure to implement the Convention		
5.1 Develop and establish national management system	Data management infrastructure established and operational	12th month
5.2 National policy, legal regulatory and promotional frameworks	Comprehensive and consistent recommendations for regulatory reform	19th month
	Proposals for management and market-based instruments	19th month
5.3 Public awareness and education programmes	National information centre established and operational	13th month
5.4 R&D and monitoring strategies	Preliminary assessment of POPs impacts on health and environment	10th month
	National POPs R&D strategy	23rd month
Component 6: Preparation and endorsement of the National Implementation Plan and National Reports		
6.1 Draft provisional NIP and national Article 15 reports	Revised and updated National Reports	24th month
6.2 Draft the NIP	Final draft NIP submitted to Government for endorsement	24th month
	Government endorsement and transmission of NIP to COP	

Outputs in ***bold italics*** require formal government endorsement

141. CONASQ holds 4 ordinary meetings each year. At each of these, Stockholm Convention implementation and project progress and plans are discussed. In addition to this regular monitoring, CONASQ will hold one special meeting each year to assess the progress of this project towards its milestones, to review its technical outputs and to make recommendations concerning project execution in the coming period. These special meetings will include the project coordinator and may also include representatives of UNEP-GEF, as implementing agency, and of other agencies collaborating in the project or engaged in closely related activities. The timing of these meetings will be flexible to optimise the review process but table 13 below shows the project outputs likely to be available to progress review meetings held in the 12th and 24th months of project implementation.

142. The first special meeting, to be held in about the 12th month of project implementation, will form the annual review meeting to be attended also by the UNEP-GEF project manager. The second special meeting, to be held in about the 24th month of project implementation, will review the final draft NIP to be submitted to Government for endorsement and will serve as a final appraisal of project implementation and operation.

Table 13: Project outputs available to Progress Review Meetings

Activity	Milestone/Output	Date
1st Meeting		**12th month**
	Project Inception Report	2nd month
2.1	Recommendations for revision of regulations and management guidelines	7th month
2.1	Inventory of stockpiles, products and articles	8th month
2.3	Data management system operational	9th month
3.1	Preliminary inventory of other articles with PCBs	11th month
4.1	Inventory of sources, estimate of releases and technical commentary setting out priorities for attention in action planning	11th month
5.1	Data management infrastructure established and operational	12th month
5.4	Preliminary assessment of POPs impacts on health and environment	10th month
2nd Meeting		**24th month**
2.2	Inventory, regulatory review and draft national strategy for POPs wastes management	14th month
2.3	Inventory and risk assessment of sites	18th month
2.4	Recommendations for revised regulation and management for contaminated sites	14th month
3.1	National inventory of PCBs, and equipment containing PCBs	14th month
3.2	Risk-based plans for the sound management, phase-out and disposal of PCBs equipment	20th month
3.2	Risk-based plans for the sound management, phase-out and disposal of other PCBs articles	20th month
4.2	Plan to strengthen national analytical and monitoring capacity	13th month
4.2	Technical guidance for key sectors	14th month
4.2	Proposals for revised licensing, monitoring and reporting regimes requiring BAT or promoting BAT/BEP	18th month
4.3	Action plan to reduce releases of u-POPs	18th month
4.3	Investment portfolio including incremental cost calculations to implement action plan	20th month
5.2	Comprehensive and consistent recommendations for regulatory reform	19th month
5.2	Proposals for management and market-based instruments	19th month
5.3	National information centre established and operational	13th month
5.4	National POPs R&D strategy	23rd month
6.1	Revised national Article 15 report	24th month
6.2	Final draft NIP submitted to Government for endorsement	24th month

143. Formal monitoring and evaluation of the project will follow the GEF Monitoring and Evaluation Policies and Procedures. SMCQ, as national executing agency, will be responsible for the preparation of annual Project Implementation Reviews and will use the detailed progress reports provided to UNEP for this purpose. The project team and its partners will use the results of these reviews to inform project implementation planning in subsequent periods. UNEP will make arrangements for an independent international terminal evaluation of the project according to Monitoring and Evaluation procedures established by the GEF. These monitoring, reporting and evaluation responsibilities are summarized in the table below.

Table 14: Monitoring, reporting and evaluation responsibilities

UNEP	National Executing Agency SMCQ/MMA
Monitor the agreed M&E plan in accordance with the terms of agreement with GEFSEC; Report progress to GEFSEC Task Force meetings	Day-to-day management of the project; Assignment and supervision of tasks; Supervision of contracts and procurement
Receive and review quarterly progress and financial reports and plans; Provide advice and recommendations to project team	Prepare and forward quarterly progress and financial reports and plans with supporting documentation to MMA management, relevant stakeholders and UNEP
Attend annual review meetings; Provide recommendations on summary progress reports and project outputs; Prepare Project Implementation Review (PIR) for GEFSEC and GEF M&E	Prepare annual summary progress reports with substantive project outputs
Review terminal report	Prepare terminal report
Prepare ToR and engage independent M&E consultant to undertake final evaluation of the project. Facilitate the review of the project by STAP (as appropriate)	Assist in independent consultants review of the Project and its outputs and potential outcomes

144. Costs for the monitoring and evaluation of the project are set out in Table 15 below and equate to the costs for Activity 1.2 shown in the project budget.

145. In Table 15, a number of regular mandatory reporting items are shown with no costs. This is because the continuous monitoring of project performance, and the preparation of periodic reporting, by the project management team form part of the normal operational duties of the team. For this reason, the costs of these monitoring activities are included in the costs of establishing and maintaining this team throughout the life of the project and shown against Activity 1.1 of the project budget.

146. Similarly, the costs of monitoring and review by the UNEP-GEF project manager are provided by the implementation fee. It follows that these costs do not form part of the project budget.

147. Ultimately, the success of the project will be measured by the endorsement of its principal product, the National Implementation Plan, by Government and its successful review by the Conference of Parties of the Stockholm Convention.

Table 15: Monitoring and Evaluation Budget

M&E activity	Purpose	Responsible Party	Budget (US$)*[1]	Time-frame
Inception workshop	Awareness raising, building stakeholder engagement, detailed work planning with key groups	Project team, SMCQ, CONASQ	3,000	Within two months of project start
Inception report	Provides implementation plan for progress monitoring	Project coordinator, SMCQ, UNEP	0	Immediately following IW
Annual Project Review	Assesses progress, effectiveness of operations and technical outputs; Recommends adaptation where necessary and confirms forward implementation plan	Project team, SMCQ, UNEP with CONASQ	8,000	Annually
Project Implementation Review	Progress and effectiveness review for the GEF, provision of lessons learned	Project team, SMCQ, UNEP-GEF	0	Annually

Terminal report	Reviews effectiveness against implementation plan Highlights technical outputs Identifies lessons learned and likely design approaches for future projects, assesses likelihood of achieving design outcomes	Project team, SMCQ, UNEP-GEF	0	At the end of project implementation
Independent Terminal evaluation	Reviews effectiveness, efficiency and timeliness of project implementation, coordination mechanisms and outputs Identifies lessons learned and likely remedial actions for future projects Highlights technical achievements and assesses against prevailing benchmarks	Project team SMCQ, UNEP-GEF Independent external consultant	15,000	At the end of project implementation
Independent Financial Audit	Reviews use of project funds against budget and assesses probity of expenditure and transactions		6,000	At the end of project implementation
Total indicative M&E cost*[1]			32,000	

*1: Excluding project team and UNEP DGEF staff time

6.0 Stakeholders Participation and Results Dissemination

6.1 Stakeholders Participation

148. Activities to be undertaken during the full project have been planned in accordance with the initial guidelines for POPs enabling activities established by the GEF. These include provision for stakeholder participation and assessment at various stages of development of the NIP and its various action plans and strategies. Furthermore, individual activities include opportunities to engage stakeholders in the development of strategic actions, the ranking of objectives against national and Convention priorities, and in the endorsement of action plans and other outcomes.

149. The obligations of the Convention require more than the establishment and enforcement of a legal framework. In developing actions to protect human health and the environment from POPs chemicals within the context of a market economy, the Convention stresses the potential usefulness of a range of voluntary actions. Developing successful positive drivers for change will require stakeholders to be involved in their formulation. The full project will take full advantage of the experience of other development activities in order to establish successful initiatives.

150. A prime component of stakeholder participation in the project is the role played by CONASQ. This organisation includes representatives of official bodies, industry, academia and civil society organisations. CONASQ will be fully informed and consulted throughout the project during the development of the National Implementation Plan. Arrangements have also been made to include CONASQ in evaluations of the project.

6.2 Dissemination of Results

151. The principal output of this full project is the National Implementation Plan for transmission to the Conference of Parties of the Stockholm Convention. This plan will describe how Brazil intends to implement the Convention in order to meet its obligations. To facilitate its dissemination, the NIP will be prepared in Portuguese for national purposes and translated into English for transmission to the Conference of the Parties.

152. Throughout the project, stakeholders will be engaged in the process of revision and evaluation of the NIP. In this way, preliminary results and draft recommendations can be widely disseminated and discussed.

153. 'Prior to its transmission to the Conference of Parties, the NIP will be endorsed by the Government of Brazil and made available to those stakeholders with direct responsibilities for elements of plan implementation. It is likely that a very wide range of stakeholders will have responsibilities during plan implementation so that the dissemination of the NIP to them will ensure its widespread release across Government and various non-government communities.

154. The Convention requires the establishment of a National Focal Point for information exchange between each Party and the Conference of Parties and the Secretariat. The full project includes provision for the establishment of such a focal point and for the data management systems required to hold, process and report the information that Brazil is obliged to present periodically to the CoP. It is expected that this information will be available to other Parties and more widely through the Secretariat to the Convention

155. *Public awareness and education*: The Convention is based on a consensual approach to the safe management of the chemicals listed within its various annexes. It requires Parties to promote and facilitate public access to various forms of information pertaining to POPs. Furthermore, it obliges Parties to promote and facilitate public awareness and education, especially for women, children and the least educated.

156. The full project also includes provision for the establishment of a national information centre and for the determination of appropriate arrangements for establishing an information dissemination network at State level. Given the size and population of Brazil, it will be important to take advantage of the full range of media and of information technology to deliver awareness and education materials.

157. The project encourages the active participation of industry and public interest non-government organisations. They are represented on CONASQ and other Brazilian committees that have been involved in technical seminars during the PDF-B phase of the work, and have assisted in defining activities necessary for the project. They are 'targets' for capacity building efforts under the project and can themselves assist in the development and delivery of awareness and education campaigns. The project will examine approaches to ensure the long-term sustainability of information provision and education campaigns through, for example, sponsorship from industry and other sources.

7.0 Incremental Costs and Project Financing

158. For most developing countries, the costs of so-called 'enabling activities' are fully borne by the international community through the GEF in accordance with Article 13 of the Convention. Brazil recognises that it has, over the past two decades, made many steps towards the elimination or reduction of POPs and thus towards the objectives of the Convention. It has established permanent structures, regulatory frameworks and coordination mechanisms that are permanent and sustainable. Within the MMA programme "Life Without Contamination" many activities related to chemical safety focused on POPs and other chemicals were developed. This Programme, nowadays renamed the Environmental Quality Programme, still takes specific steps towards the objective of protecting human health and the environment from POPs. These all will be engaged to ensure the success of this project and represent a baseline on which the project is built.

159. *Incremental costs*: The project has been designed to incorporate actions required to develop a sustainable capability to meet the obligations of the Convention within the institutional and regulatory frameworks that exist in Brazil. The costs of doing so thus represent incremental costs that would not be incurred if the Convention had not prompted them. This incrementality may be considered as permitting a series of efficient precautionary actions that will reduce future costs likely to be incurred in Brazil and globally addressing human health problems and remediating an environment damaged by POPs chemical pollution. The physico-chemical characteristics of the chemicals listed in the Convention, in particular their persistence and capacity for long-range transport, mean that the global benefits sought by the Convention derive largely from local and national efforts. For this reason it is difficult to dissociate the incremental costs of gaining global benefits from the costs of actions only benefiting local communities.

160. *Co-financing*: In assessing the incremental costs of the project, it is recognised that some activities were to have been undertaken by Brazil even without the GEF intervention. For this reason, Brazil agrees to contribute a total of up to US $ 1,5 Million in direct support of those

project activities. This amount is predicted in the Brazilian Government Budget, through the Environmental Quality Programme. This Programme includes activities such as Capacity Building in Environmental Quality; Auxiliary Projects to Improve the Environmental Quality; Support the Structuring of Environmental Emergencies Answers Systems at State Level; Environment Contamination Prevention and Management of Hazardous Chemicals.

161. The project budget table (below) gives a breakdown of the costs of each project activity and the source of funding. The co-financing to be provided by Brazil represents a majority of funding to those activities that are essentially national in character and related to:

- project management;
- the establishment of an appropriate national infrastructure and policy and regulatory framework;
- the continuation of PCB registration and inventory activities;
- review of guidance and regulatory frameworks in relation to the introduction and promotion of BAT/BEP; and
- the development of R&D and monitoring strategies.

162. In addition to this contribution, UNEP, as the GEF Implementing Agency will make an in-kind contribution to the project through the provision of specific technical expertise and advice over and beyond that provided for project supervision. It is anticipated that UNEP's technical expertise will be engaged in the areas of fitting Brazil to require or promote BAT/BEP in potential sources of unintentional production and release of POPs, and in the area of developing Brazil's R&D and monitoring capacity. However, UNEP will also respond to requests from Brazil for particular technical help during the course of project implementation.

163. *GEF Contribution*: Funding provided by the GEF will be directed in particular to those activities that represent new obligations required by the Convention, by the guidelines for NIP development now adopted by the Conference of the Parties, and by the operation of the project itself. GEF funding thus represents a majority contribution to 'alternative' actions, in particular:

- country assessments and inventories of POPs products and articles; of wastes; and of potential sources for the unintentional production of POPs;
- action planning in relation to the phase-out of PCBs and to the reduction of releases and elimination of sources of unintentional production of POPs
- public awareness and education programmes
- monitoring and evaluation

164. *Cost-effectiveness*: The cost of inaction is the continued use, improper disposal and unconstrained release of POPs chemicals to the environment with consequent risks to the environment and to human health both in Brazil and globally. Furthermore, inaction with regard to the environmentally sound management of POPs, POPs equipment and other articles and products will create an ever increasing liability to remedial costs that are likely to be considerably higher than the costs of precautionary action. It follows that the project is cost-effective in overall terms.

165. Inaction with regard to a major Party such as Brazil will also weaken the global accord established in the Stockholm Convention with a knock-on effect in other developing countries that lack the capacity to manage POPs chemicals in a safe and environmentally sound manner. The project is thus cost-effective in enhancing the sustainability and replication of actions required under the Convention.

166. As noted above, Brazil has already taken significant steps to regulate or eliminate POPs. This project has been designed to exploit and build upon the infrastructure and expertise that already exists in the country and is thus cost-effective at national level.

167. With regard to the cost-effectiveness of the GEF contribution, although the project includes actions that presently overlap activities proposed in other projects to be funded by the GEF, the common management of these different projects within the SMCQ will ensure that actions are not

duplicated but coordinated. This will enhance the cost-effectiveness of the GEF contribution to the project.

168. Furthermore, although Brazil is a major developing country with an integrated, industrialised economy, and one of only four states to develop its NIP through the full GEF project cycle, the GEF contribution to the project is only three times the ceiling for enabling activities available to all eligible states.

8.0 Project Budget

169. The total budget and the source of funding for each Activity and Objective of the Full project phase are shown in Table 16. The project budget in UNEP format, showing allocations by object of activity in given in Appendix 5.

9.0 Terms And Conditions

(a) Responsibility for Cost Over-runs:

170. Expenditure against the GEF Trust Fund cannot exceed the approved GEF budget. Any cost overrun (expenditure in excess of the amount budgeted in each budget sub line) shall be met by the organization responsible for authorizing the expenditure, unless written agreement has been received in advance, from UNEP and a revision to the project document amending the budget issued by UNEP.

(b) Cash Advance Requirement:

171. Initial cash advance of US$142,375, being 100% of the allocation for 2007 and 11% of the total GEF grant, will be made upon signature of the project document by both parties and will cover expenditures expected to be incurred by The Executing Agency during the first three months of the project implementation. Subsequent advances are to be made quarterly, subject to:

- Confirmation by the Executing Agency at least two weeks before the payment is due, that the expected rate of expenditure and actual cash position necessitate the payment, including a reasonable amount to cover "lead time" for the next remittance; and
- The presentation of
  - (i) A satisfactory financial report showing expenditures incurred for the past quarter, under each project activity.
  - (ii) Timely and satisfactory reports on project implementation.
  - (iii) Requests for subsequent cash advances should be made using the standard format provided in Appendix 6.

172. The final disbursement, normally amounting to 2% of the total project budget, will be made upon submission of the Terminal Report and copies of all physical products such as publications and manuals.

(c) Inventory of Non-expendable equipment purchased against UNEP projects:

173. The SMCQ will maintain records of non-expendable equipment (items costing US$1,500 or more as well as items of attraction such as pocket calculators, cameras, computers, printers) purchased with UNEP funds (or GEF funds, Trust funds or Counterpart funds administered by UNEP), and submit an inventory of such equipment to UNEP following the format contained in Appendix 6, attached to the periodic progress report,.

174. Non-expendable equipment purchased with funds administered by UNEP remains the property of UNEP under the custody of the SMCQ during the life of the project. The SMCQ shall be responsible for any loss or damage to equipment purchased with UNEP administered funds.

175. The equipment can only be disposed of with the authorization of UNEP. Proceeds from the disposal of equipment shall be credited to the accounts of UNEP, or to the appropriate trust fund or counterpart funds.

176. Within 60 days of completion of the project, the SMCQ will submit to UNEP a final inventory of all non-expendable equipment purchased under this project indicating description, serial number, original cost, present condition, location and a proposal for the disposal of the said equipment. A duly authorised official of the SMCQ should physically verify the inventory.

177. At project completion, the SMCQ may request the transfer of ownership of the equipment purchased during the project and listed in the inventory. The Request for the Transfer of the equipment and the Transfer Agreement between the SMCQ and UNEP need to be completed and signed by the signatory to the project document using the formats presented in Appendix 6.

(d) Claims by Third Parties against UNEP

178. The Executing Agency, shall be responsible for dealing with any claims which may be brought by third parties against UNEP and its staff, and shall hold UNEP and its staff non-liable in case of any claims or liabilities resulting from operations carried out by The Executing Agency, under this National Project document, except where such claims or liabilities arise from gross negligence or wilful misconduct of the staff of UNEP.

(e) Amendments

179. The Parties to this project document shall approve any modification or change to this project document in writing.

(f) Arbitration

180. The parties shall first seek to resolve through conversations with each other any disputes between them over the interpretation and implementation of this Agreement and the Project. If those negotiations prove unsuccessful, then either Party may initiate arbitration which shall be binding and conducted in accordance with the UNICITRAL arbitration rules or such other procedures as they may agree.

(g) Privileges and immunities

181. Nothing in or relating to the present Agreement shall be deemed a waiver, express or implied of any privileges or immunities of the United Nations and UNEP.

Table 16: Project Budget

	BY ACTIVITY	GEF	Brazil	UNEP	Total
1	**Project Management and supervision**	**118,000**	**300,500**	**0**	**418,500**
1.1	Establish project management & implementation arrangements	74,500	293,500		368,000
1.2	Operate project review, monitoring and evaluation regime	43,500	7,000		50,500
2	**Measures in relation to POPs products and articles in use, wastes and sites containing or contaminated by POPs**	**278,375**	**249,730**	**0**	**528,105**
2.1	Strategies for identifying stockpiles and products and articles in use that contain or are contaminated by POPs	79,713	68,318		148,031
2.2	Strategies for identifying and managing waste consisting of, containing or contaminated by POPs	78,475	43,545		122,020
2.3	Measures to identify sites contaminated by POPs	95,331	105,331		200,662
2.4	Legal, regulatory frameworks and management guidance for sites contaminated	24,856	32,536		57,392
3	**Measures in relation to polychlorinated biphenyls (PCBs)**	**180,685**	**193,427**	**0**	**374,112**
3.1	Prepare a national inventory of PCBs and equipment containing PCBs	106,800	135,084		241,884
3.2	Develop mechanisms & strategy for the sound management & phase out of PCBs, PCB equipment	73,885	58,343		132,228
4	**Measures in relation to the unintentional production of POPs**	**250,375**	**227,575**	**25,000**	**502,950**
4.1	Develop a country assessment of the potential for releases of unintentionally produced POPs	98,875	0		98,875
4.2	Review BAT/BEP guidance and existing regulatory and monitoring capacity	13,500	198,500	25,000	237,000
4.3	Develop measures for the progressive reduction of releases and elimination of sources of unintentionally produced POPs	138,000	29,075		167,075
5	**Measures in relation to Federal and State Infrastructure to Implement the Convention**	**326,383**	**313,383**	**25,000**	**664,766**
5.1	Develop and implement national management system for Stockholm Convention compliance	0	108,383		108,383
5.2	Develop national and provincial policy, legal, regulatory and promotional frameworks to meet Convention requirements	6,000	36,000		42,000
5.3	Develop public awareness and education programmes and materials	317,383	36,000		353,383
5.4	Develop R&D and monitoring strategies	3,000	133,000	25,000	161,000
6	**Preparation and endorsement of the National Implementation Plan and National Reports**	**109,700**	**121,840**	**0**	**231,540**
6.1	Draft the provisional NIP and the National Report required under Article 15 of the Convention	13,000	17,000		30,000
6.2	Draft the National Implementation Plan	96,700	104,840		201,540
	TOTAL COST FULL PROJECT PHASE	**1,263,518**	**1,406,455**	**50,000**	**2,719,973**