



Global Environment Facility

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October 1, 2007

Dear Council Member:

I am writing to notify you that UNIDO, the Implementing Agency for the project entitled, *Regional (Nigeria, Ghana): Regional Project to Develop Appropriate Strategies for Identifying Sites Contaminated by Chemicals listed in Annexes A, B and/or C of the Stockholm Convention*, has submitted the proposed project document for CEO endorsement prior to final approval of the project in accordance with UNIDO procedures.

Over the next four weeks, the Secretariat will be reviewing the project document to ascertain that it is consistent with the proposal included in the work program approved by the Council in August 2006, and with GEF policies and procedures. The Secretariat will also ascertain whether the proposed level of GEF financing is appropriate in light of the project's objectives.

If by October 29, 2007, I have not received requests from at least four Council Members to have the proposed project reviewed at a Council meeting because in the Member's view the project is not consistent with the Instrument or GEF policies and procedures, I will complete the Secretariat's assessment with a view to endorsing the proposed project document.

We have today posted the proposed project document on the GEF website at www.theGEF.org. If you do not have access to the Web, you may request the local field office of UNDP or the World Bank to download the document for you. Alternatively, you may request a copy of the document from the Secretariat. If you make such a request, please confirm for us your current mailing address.

Sincerely,

cc: Alternates, Implementing Agencies, STAP



REQUEST FOR CEO ENDORSEMENT UNDER THE GEF Trust Fund

GEFSEC PROJECT ID: 2720
IA/ExA PROJECT ID: GF/RAF/07/XXX
COUNTRY: Regional: Ghana and Nigeria
PROJECT TITLE: Regional project to develop appropriate strategies for identifying sites contaminated by chemicals listed in Annexes A, B and/or C of the Stockholm Convention
GEF IA/ExA: UNIDO
OTHER PROJECT EXECUTING AGENCY(IES): Ministry of Environment & Science, Accra, Federal Ministry of Environment, Abuja and Regional Industrial Development Office (UNIDO, Abuja)
DURATION: 4 years
GEF FOCAL AREA: Persistent Org. Pollutants
GEF-4 STRATEGIC PROGRAM: SP-3 Partnering in the Demonstration of Feasible, Innovative Technologies and Best Practices for POPs Reduction
GEF OPERATIONAL PROGRAM: OP 14
COUNCIL APPROVAL DATE: 1 August 2006
COUNCIL APPROVED AMOUNT*: \$2,650,000
CEO ENDORSEMENT AMOUNT*: \$2,650,000
EXPECTED AGENCY APPROVAL DATE: September 2007
EXPECTED SUBMISSION DATE OF MID-TERM REPORT: July 2009
EXPECTED GRANT CLOSING DATE: June 2011
EXPECTED SUBMISSION DATE OF TERMINAL EVALUATION/ PROJECT COMPLETION REPORT: July 2011

FINANCING PLAN (\$)		
	PPG**	Project*
GEF Total	650,000	2,000,000
Co-financing	(provide details in Section d): Co-financing)	
GEF IA/ExA:		
UNIDO (in-kind)	30,000	200,000
UNIDO (in cash)		100,000
Governments:		
Ghana (in-kind)	25,000	250,000
Nigeria (in-kind)	25,000	250,000
Nigeria (in cash)		900,000
Others:		
- GRC (in-kind)		250,000
- DANIDA, CIDA, mining industries in Ghana, GTZ (Germany), ECOWAS, etc.		150,000
Co-financing Total	80,000	2,100,000
Total	730,000	4,100,000

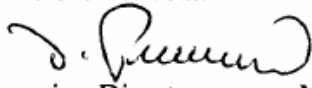
Financing for Associated Activities If

Any: **FOR JOINT PARTNERSHIP*****

GEF PROJECT/COMPONENT (\$)		
(Agency Name)	(Share)	(Fee)
(Agency Name)	(Share)	(Fee)
(Agency Name)	(Share)	(Fee)

Approved on behalf of the United Nations Industrial Development Organization (UNIDO). This proposal has been prepared in accordance with GEF policies and procedures and meets the standards of the GEF Project Review Criteria for CEO endorsement.

Name & Signature


 Mr. Dmitri Piskounov, Managing Director
 Programme Development & Technical
 Cooperation Division
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Date: 23 May 2007


 Mr. S.M. Si Ahmed, Director
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1. **FINANCING** (for all the tables, expand or narrow table items as necessary)

a) **PROJECT COST**

Project Components/Outcomes	Co-financing (\$)	GEF (\$)	Total (\$)
1. Project Coordination including:			
- Project management budget/cost	285,000	180,000	465,000
- Technical support from and capacity building for project units in Ghana and Nigeria	80,000	60,000	140,000
2. Establishment of regional policy and national legal frameworks for the management of contaminated sites	250,000	250,000	500,000
3. National and Regional capacity building and institutional strengthening	200,000	275,000	475,000
4. Toolkit for the selection of environmentally sound and economically feasible remediation technologies and establishment of national Geoenvironmental Centres	775,000	935,000	1,710,000
5. Establishment of environmental IMS and framework for stakeholders engagement and public educational and awareness programme	350,000	200,000	550,000
6. Regional monitoring and evaluation plan	160,000	100,000	260,000
Total Uses of Funds/project costs	2,100,000	2,000,000	4,100,000

* This item is the aggregate cost of project management; breakdown of this aggregate amount should be presented in the table b) below:

b) **PROJECT MANAGEMENT BUDGET/COST¹**

Component	Estimated Staff weeks	GEF (\$)	Other Sources (\$)	Project Total (\$)
Locally recruited personnel* (National Programme Coordinators, administrative staff)	361	90,000	80,000	170,000
Internationally recruited consultants* (CTA, Regional Coordinator)	60	60,000	80,000	140,000
Office facilities, equipment, vehicles and communications		10,000	75,000	85,000
Travel		20,000	50,000	70,000
Total	421	180,000	285,000	465,000

* Local and international consultants in this table are those who are hired for functions related to the management of project. For those consultants who are hired to do a special task, they would be referred to as consultants providing technical assistance. For these consultants, please provide details of their services in c) below:

¹ For all consultants hired to manage project or provide technical assistance, please attach a description in terms of their staff weeks, roles and functions in the project, and their position titles in the organization, such as project officer, supervisor, assistants or secretaries.

c) CONSULTANTS WORKING FOR TECHNICAL ASSISTANCE COMPONENTS:

Component	Estimated Staff Weeks	GEF (\$)	Other Sources (\$)	Project Total (\$)
Personnel				
Local consultants	103	100,000		100,000
International consultants	180	240,000	210,000	450,000
Total	283	340,000	210,000	550,000

d) CO-FINANCING

Name of Co-financiers (source)	Classification	Type	At Concept (\$)	At Work Program (\$)	At CEO Endorsement (\$)*
Ministry of Environment and Science, Ghana	Nat'l Gov't	in kind	25,000	250,000	250,000
Federal Ministry of Environment, Nigeria	Nat'l Gov't	in kind in cash	25,000	250,000	250,000 900,000*
Geoenvironmental Research Centre, UK	Private Sector	in kind	30,000	250,000	250,000
UNIDO	GEF IA/EA	in kind in cash	30,000	200,000	200,000 100,000**
Multidonors such as DANIDA (Denmark), CIDA (Canada), mining industries in Ghana, GTZ (Germany), ECOWAS, etc.	Bilateral/Multi lateral agencies	in kind/in cash		1,050,000	150,000
Total Co-financing			110,000	2,000,000	2,100,000

* The Government of Nigeria through the Federal Ministry of Environment has committed an additional cash contribution of US\$ 900,000. This is the reason why the expected co-financing from multidonors has been reduced, though continuous negotiation with relevant donors is still ongoing to confirm their commitment to the project.

** UNIDO has also committed an additional cash contribution of US\$ 100,000 for the establishment of an IMS/electronic portal for contaminated sites.

2. RESPONSE TO REVIEWS

a) COUNCIL

Intersessional Work Program: Comments from Council members (Reference to GEF/IS/15) and UNIDO response

Comments from France:

According to article 6 Section 1(e) of the Stockholm Convention states that Parties shall “endeavour to develop appropriate strategies for identifying sites contaminated by chemicals listed in Annex A, B or C”. The objective of the proposed project is to build capacity in Ghana and Nigeria to develop appropriate strategies for identifying such lands and sites. In our view, this project is very interesting. We only have few remarks: concerning the importance given to PCB, there are other POP and as the project is planned for 4 years, it could be useful to consider “new” POP, which could be added to the Convention. However, there are other POP already concerned by the text, so there is no reason to focus on PCB. This is underline p 27, as “many similar toxic chemicals” are mentioned but it could be clearer.

To conclude, this project will be very helpful for these countries, if local authorities are supporting it. Important initiative for Western Africa.

UNIDO response:

The proposed project is focused to develop appropriate methodologies to identify sites contaminated by POPs chemicals listed under Annex A, B or C of the Stockholm Convention (including new POPs since the same criterion for screening information of POPs chemicals remains unchanged). Other sites contaminated by non-POPs chemicals could be identified using the methodologies established under this project (after performing some modifications). However, the technical and analytical procedures used for measuring the level of chemicals present other than POPs, could differ from those used for POPs chemicals. Users would need to adopt and readjust these methodologies in order to use them for other different purposes.

Comments from Germany:

Recommendation:

Germany agrees to the project proposal. Changes outlined below should be made during further planning steps and during project implementation.

Comments:

There is ongoing work by an expert group to prepare guidelines on Best Available Techniques and Best Available Practices for presentation and discussion at POPs COP3. The implementing agency (UNIDO) should guarantee information flow between this expert group and people responsible for the project execution and should take care that policies and strategies defined for Nigeria and Ghana might match the contents of the guidelines under development.

UNIDO response:

We took note of Germany’s comments and revised para 3 of the Project Brief as well as para 1 of Annex A (Incremental Costs) of the Executive Summary.

Comments from the United States:

The United States seeks recirculation (of the project document) to the Council prior to CEO endorsement.

We had requested clarification whether only POPs listed under the Stockholm Convention are being addressed in this project. We also sought clarification that GEF funding will not be paying for remediation of the contaminated sites identified as part of the project. While such remediation efforts are

beneficial, the costs of remediating POPs-contaminated sites on a global basis are not likely sustainable in the context of GEF funding.

UNIDO response:

We confirm that this proposed project will address only the POPs chemicals listed under Annex A, B or C of the Stockholm Convention. The texts concerning the above have been revised accordingly.

UNIDO also confirms that the GEF funding will not be used for remediation of contaminated sites rather for the development of methodologies for identification of these sites as well as for capacity building support for local human resources and experts to enable skills upgrading for the selection of remediation technologies on an environmentally sound manner. Experimental scale tests and investigations results on at least 4 sites for land remediation of POPs contaminated sites in order to verify and validate the site selection methodology, the framework for remediation and the selected technology options based on BAT/BEP.

b) GEF SECRETARIAT
 GEF SECRETARIAT PROJECT REVIEW OF 25 JUNE 2007

At PPG, if any	Expected at Work Program inclusion	Expected at CEO endorsement	UNIDO response
1. COUNTRY OWNERSHIP			
Country drivencness			
<p>One would have expected to see lead executing agencies for each of the participating countries named on the cover page and driving the development and execution of this project, with UNIDO acting in a supervisory role as befit its role as an Executing Agencies operating under Expanded Opportunities (EA). Operating as an Executing Agency is somewhat different than operating as an executing agency under an Implementing Agency. Although there are a few precedents of Agency acting both in an IA and EA capacity (e.g. UNEP executing a POPs project) is not the preferred model. Moreover, in that particular case, there is a clear wall and separate responsibilities between GEF Coordination in Nairobi and the substantive Chemicals Unit: the substantive Unit executing the project has to ask GEF Coordination for clearance before amending a project document for example, and reports on project progress to GEF/CO who is also responsible for organizing mid-term reviews, etc. It would be in the interest of UNIDO (particularly as UNIDO's role as EA is going to grow) to set up (or demonstrate that it has set up) a system where the distinction between the roles and responsibilities of the entity implementing the project for the GEF (supervision) and the entity supporting the execution of the project is pretty clear.</p> <p>The proposal follows a request for assistance in the area of POPs contaminated land by the Ministry of Environment of Nigeria.</p>	<p>National execution, with appropriate technical support from UNIDO.</p> <p>Apr 2006 The background section is fairly generic. I see no indication that the issue is a priority for Nigeria or Ghana as established in their respective NIPs.</p> <p>The proposal is to set up a regional coordination in UNIDO regional office: a further sign of the lack of country drivencness of the proposal.</p>		<p>This was further substantiated in paras 16 to 19 and para 3 was modified in the Project Document (PD).</p> <p>Para 65 of PD explains the reason for having the RCU in UNIDO Regional office in Abuja and its function. Para 70 on cost-effectiveness has been added.</p>

At PPG, if any	Expected at Work Program inclusion	Expected at CEO endorsement	UNIDO response
<p>There is no further evidence that the issue is a priority for the countries of the region. In particular, one would have expected to see an analysis of whether contaminated land appears as a priority following the work underway in the development of NIPs.</p>			
<p>Endorsement: The PDF-B proposal should be endorsed by the Operational focal points of the participating countries</p>	<p>Both countries have ratified the SC, and pledge co-financing through their endorsement.</p>	<p>The project has been endorsed by the GEF focal points of the two countries: Ms. A.N. ENE-ITA, Director, Planning, Research and Statistics (Federal Ministry of Environment of Nigeria) and Mr. E.O. Nsenkire (Ministry of Environment and Science of Ghana).</p>	<p>Endorsement letters from the respective GEF focal points are attached.</p>
2. PROGRAM AND POLICY CONFORMITY			
Program Designation and Conformity			
<p>The title of the proposal consciously reflects the language of the Stockholm Convention, suggesting therefore that the project is fully eligible under OP 14, and notably SP2 – NIP implementation. However, the proposed activities seem to go much beyond.</p> <p>Revised document: clarified</p>	<p>The SC does require that countries develop strategies for identifying contaminated sites. OPI4, on the basis of experience, recognizes that some remediation will be necessary directly associated with stockpiles removal, whilst pilot demonstration may be necessary under targeted research.</p>	<p>The project is consistent with the GEF operational programme on POPs and is aligned with GEF-4 POPs strategic program 3: Generating and Disseminating Knowledge to Address Future Challenges in Implementing the Stockholm Convention.</p>	<p>Noted</p>
	<p>UNIDO interprets the SC at its risks (para 2 of the brief).</p> <p>The justification for looking at contaminated sites beyond POPs is weak. Certainly, it is not because “some NGOs are already requesting broadening of the SC”.</p>		<p>Noted</p> <p>Para 14 explains that the focus will be on POPs contaminated sites but will cover strategies in the management of other PTS. This will also be reflected in the policy/legal framework, which gets high priority in the project.</p>
Project Design			
<p>The project design is not described in the concept note. One would expect a conceptual description of the baseline vs.</p>	<p>Articulation of baseline vs. incremental GEF intervention.</p>		

At PPG, if any	Expected at Work Program inclusion	Expected at CEO endorsement	UNIDO response
<p>GEF alternative and a 12-page description of the main project components and outcomes, including a nominal budget breakdown by component.</p> <p>As written, it is unclear if the proposal intends to concentrate mostly on the legacy of pesticides, or industrial chemicals. If it is on industrial chemicals, the matter of relevance for the region has to be developed. If it is pesticides, it is not clear to me how this contributes to the ASP. All the contrary, I see much scope for duplication of effort. Perhaps more fundamentally, the proposal does not convey clearly if it is mostly about developing strategies for management or about remediation. This has implications on discussions of stakeholders, sustainability, etc.</p> <p>It is unclear what the geographical scope of the proposal is.</p> <p>Revised document: points above clarified.</p>	<p>Apr 2006</p> <p>The incremental cost analysis is light. The scope of the project is unclear. Do we develop a strategy? And implement it? And implement pilot remediation? Activity 4.4 refers to selecting appropriate remediation technology for POPs contaminated site. Unlikely that this could be anything but site specific.</p>		<p>It was explained that the factors and parameters could not be measured or quantified in the long run because of the complexities of land decontamination. The summary of baseline/incremental cost is given Annex 1.</p> <p>The main scope of the project is to develop strategies for identifying POPs contaminated sites and in the process take up only model and small-scale remediation technologies. All the 6 outputs as formulated, lean towards strategy development with emphasis on policy framework, contaminated land management system (could extend beyond POPs) and establishment of IMS. Activities 4.2 and 4.3 are intended to make a toolkit available to developing countries. Model and small-scale experiment(s) to be designed in the project are indeed national site specific but not on a large-scale taking into account the time and cost constraints. However, the model experiments will be applicable and replicable for the whole region.</p>
	<p>The proposal notes repeatedly that “remedial after the event will be painful and expensive”. Probably very true, but how is this addressed by this proposal? By and large, the proposal does not address prevention.</p>		<p>The expectation is that enacting policy/legal framework on a national and consequently on a regional basis will have an impact on the prevention of future land contamination. Obviously, projects like the ASP that take care the prevention of accumulated stocks and as part of NIPs action taken in industrial and non-industrial categories implicated in SC should take care the elimination/reduction of UPOPs. This will have a direct effect on land contamination. The project strategy of monitoring/ containment of POPs contaminated land will add to the prevention of further contamination.</p>

At PPG, if any	Expected at Work Program inclusion	Expected at CEO endorsement	UNIDO response
			There is strong emphasis on IMS, public education, which should enable increased awareness of land contamination prevention.
	As mentioned above, the proposal is too heavy on the PCU. I don't see the benefits of the proposed execution arrangements.		The proposed execution modality was prepared after detailed discussions with all parties concerned. This is actually based on the broadening of the PDF-B implementation modality. It was felt that project coordination units for each output category except M&E would facilitate the implementation and good interaction at horizontal and vertical levels.
	Activity 3.2 refers to SLM, which has a rather specific meaning in the GEF.		In activity 3.2, SLM has been changed to sustainable contaminated land management.
	Unclear what the proposed "Geoenvironmental centers" would do, and how they would be established as "ppp".		GRC: the nomenclature was given based on the PDF-B implementation and interaction with the Geoenvironmental Research Centre in UK. Initially, the local centers will concentrate only on analytical aspects, technology selection and in conducting small-scale experiments and toolkit preparation. In Ghana, the location of the center in an existing environmental laboratory has already been agreed while in Nigeria, it is still not decided. As the national (regional) capacity develops, the Centre will take up additional activities including "ppp".
	Activity 2.4 "keep the RMC informed" seems rather that it should be part of TORs for someone.		RMC will have its own ToR as it is the apex body of implementation arrangement.
Sustainability (including financial sustainability)			
The concept notes that the proposed project would become financially sustainable by virtue of involving the private sector, governments and local communities.	Analysis of conditions for sustainability. Apr 2006 Weak. Needs to be developed.	The project intends to develop, reform and extend existing policy and legislation / regulation to cover the management of contaminated sites.	Item C.6 of the PD, para 79-86 have been further developed and a table in para 71 has been added.

At PPG, if any	Expected at Work Program inclusion	Expected at CEO endorsement	UNIDO response
<p>There is no attempt to elucidate how stakeholder involvement would translate into financial sustainability. At this conceptual level, one would expect some analysis of what it might mean for this project to be sustainable.</p>		<p>There is also a need to develop a framework for setting realistic risk-based standards for sites remediation. These standards could be included in the toolkit.</p> <p>Enforcement of the legislative and regulatory framework may be a serious threat to the project sustainability. Furthermore, there is no clear indication from the recipient countries and other stakeholders that remediation would take place once the toolkit is developed and adopted. The modalities of establishing the GRCs within existing Institutions should be clearly defined. The expectation is that the GRCs work closely with the relevant authorities considering the fact that the remediation of contaminated sites is an integral part of a land use planning process together with environmental and health protection, which are primarily government's responsibility.</p> <p>21 June 2007</p> <p>The GRCs will have to play a key role in technical capacity building in the two countries and consequently will contribute to the sustainability of the project. So, before project starts, it is advisable that Nigeria solves the issue related to the status and location of its GRC.</p>	<p>The intertwining arrangements (para 69) with GRC, Cardiff, UK will also add to the sustainability. Para 53 mentions about the interest of important NGOs/industries (see also Annex 6 Appendix 2)</p> <p>Enforcement modalities will be part of project activities during drafting and enactment of the policy/legal framework. While the toolkit will provide mechanism for identifying Pops contaminated sites and ranking of hot spots, actual large-scale remediation is not part of project strategy. The location of GRCs in existing institutions has been identified and the set up of GRC is added in the project document under para 88. GRC will work closely with stakeholders/RCU/NCUs in regional capacity building including risk assessment/management and decision making process in land remediation.</p> <p>This important point is noted and UNIDO has just resolved this issue. The Nigerian authorities have now selected the laboratory in Lagos belonging to the Ministry of Environment to be upgraded to a GRC. See attached letter dated 2 July 2007 item 6 from the Fed. Ministry of Environment.</p>
<p>Replicability:</p> <p>Approaches proposed in this project could be replicable.</p>	<p>Dissemination and replication strategy</p> <p>Apr 2006</p> <p>Weak. I don't see the budget to support promotion of replication.</p>	<p>Outputs such as the policy/legal framework and the toolkit offer scope of replicability to other countries in the region</p>	<p>Para 84 refers to replicability but no budget provision is given in this project for replication outside Ghana and Nigeria. However, two joint workshops in collaboration with ECOWAS is planned for the benefit of the West Africa region.</p>

At PPG, if any	Expected at Work Program inclusion	Expected at CEO endorsement	UNIDO response
Stakeholder involvement			
Outlined in only a very cursory way. The proposed lead executing agency for each participating country is not named.	Stakeholder involvement plan Apr 2006 Weak. Needs to be developed	It is foreseen that NGOs along with relevant ministries will be part of the public awareness and environmental educational programmes. The project should be supported by local authorities, particularly regarding the issue of remediation.	Noted
Monitoring and evaluation			
Not addressed.	M&E plan with indicators and targets. Apr 2006 Proposal to develop "M&E indicators for the entire project" (Activity 6.1) comes rather late.	The M&E plan remains too general and should include quantitative indicators. The Monitoring, Reporting and Evaluation Plan does not include the yearly PIR (project Implementation review) that Agencies are requested to submit for each project each year. June 2007 The M&E plan has been improved.	M&E plan has been strengthened where quantifiable indicators are added. The PIR has also been included.
	The log frame includes numerous indicators and targets. Probably too many to be useful as a tool to assess whether, ultimately, the project is a success or not. It would be useful to pull out some sort of "results" table with a limited number of the most meaningful quantifiable indicators, with baseline and targets, one/two per component.		The logframe has been suitably modified.
3. FINANCING			
Financing Plan			
Grant financing. Proposed co-financing ratio of \$0.6 co-financing for 1\$ GEF. A ratio of at least 1:1 would be expected. Revised document: addressed	Evidence of commitments to co-financing. Apr 2006 I find no commitment for co-financing from "donors" for \$1m, nor from UNDP's (\$400,000???)	Letters of commitment from recipient countries and from other donors are attached. The co-financing budget is US\$ 2 m but only US\$ 1.3 million is secured.	Further written commitments to the project have been added. In addition, UNIDO will provide cash contribution of US\$ 100,000 for the establishment of IMS/electronic portal for contaminated sites.

At PPG, if any	Expected at Work Program inclusion	Expected at CEO endorsement	UNIDO response
		<p>June 2007</p> <p>Nigeria has increased its co-financing by \$900,000, thereby reducing the need to secure other funding from bilaterals and other donors.</p> <p>UNIDO commits to securing at least \$150,000 during project implementation, which will have to be reported in the PIR.</p>	<p>Written commitment from Nigeria for the additional cash co-financing of \$900,000 is attached.</p> <p>UNIDO will continuously negotiate with relevant donors to confirm their commitment to the project, which will be reported in the PIR.</p>
		<p>The additional co-financing from Nigeria is said to be cash but this is not explicit in the letter of commitment from the GoN. More clarification is necessary on the source and nature of these funds, as well as how they will be utilized to achieve project objectives. In this light, a detailed project budget, which would show GEF as well as co-financing, is missing. Otherwise, it is impossible to judge whether co-financing is appropriate, and it will be near to impossible to review, report, and assess whether co-financing for specific activities has indeed materialized.</p>	<p>The details of the GoN funding are given in the attached letter of 2 July 2007 from the Federal Ministry of Environment. The breakdown is now reflected in Annex 1 – Incremental Cost Analysis.</p>
Implementing Agency Fees			
<p>The budget for the PDF-B includes US\$ 30,000 for “UNIDO staff mission”. This should be covered by the Project Fee.</p> <p>Revised document: addressed (PDF-B will be submitted at later stage)</p>	<p>Unclear what the GEF/UNIDO project review exercise refers to (Activity 6.5). Looks like this should be covered by the fee.</p>		<p>Budget adjustment made for Output 6, Activity 6.5</p>
4. INSTITUTIONAL COORDINATION AND SUPPORT			
Core Commitments and Linkages			
<p>UNIDO is responsible for a number of NIPs development in the region.</p>			

At PPG, if any	Expected at Work Program inclusion	Expected at CEO endorsement	UNIDO response
Consultation, Coordination, Collaboration between IAs, and IAs and EAs, if appropriate			
<p>The proposal notes that coordination with the ASP (Bank and FAO), as well as with UNEP (NIPs) is required. How will coordination with the ASP be achieved?</p> <p>FAO is already working on the development of a concept for pilot remediation of contaminated sites linked to the ASP.</p>	<p>Mechanisms for coordination with ASP and related initiatives.</p> <p>Apr 2006</p> <p>Though the WB/FAO ASP and the UNDP PCB projects are mentioned, there is no evidence of specific consultation with the task managers or national counterparts for these projects.</p>	<p>Coordination with a number of projects, programmes and Institutions is planned:</p> <ul style="list-style-type: none"> - African Stockpile Project in Nigeria - Guinea Current Large Marine Ecosystems (GCLME), - SAICM - PCB management in Ghana (GEF/UNDP) 	<p>Several project managers were met during discussions and consultations. But during the implementation of the full project, most relevant projects will be linked to obtain maximum benefits and impact.</p>
	<p>That the project would complement the ASP, perhaps, but it is certainly not a follow-up as repeated stated. (Moreover, the characterization of the complementarity with the ASP in para 45 is wrong, I believe).</p>	<p>June 2007: In particular, coordination to ensure complementarity with the ASP will be crucial during project implementation.</p>	<p>The proposed project would link with ASP project on site contamination.</p>
	<p>The UNDP project is improperly referred to as the "PCB monitoring". It is a PCB management project.</p>		<p>Noted and changes made in the Project Document</p>
5. RESPONSE TO REVIEWS			
<p>Council N/A</p>	<p>N/A</p>	<p>The response to Council comments should note that in fact pilot demonstration of remediation will be undertaken in 4 sites in order to verify and validate the site selection and the selected technology option.</p> <p>June 2007</p> <p>The above point has not been taken up.</p> <p>Further comments were not fully addressed</p> <ul style="list-style-type: none"> - Study tour has to be fully co-financed 	<p>Under Annex 4, p 25 Component 4, the objective verifiable indicators column item 4 has been modified accordingly.</p> <p>Study tour normally includes short-term training of two to four weeks. It is at the moment possible with Nigeria to cover the cost from their co-financing but in the case of Ghana, we have to support it from the GEF funding.</p>

At PPG, if any	Expected at Work Program inclusion	Expected at CEO endorsement	UNIDO response
		High cost of international consultants	The international consultant cost of \$10,000/month is based on an average of remuneration paid by UNIDO according to standard rates excluding travel costs.
		Apparent discrepancy between tables b and c	The discrepancy has been corrected accordingly.
		Management cost is still 12% of GEF budget when counting component 1 as management cost.	Component 1 is not fully management cost as the regional/national coordinators have a technical role to play and will be trained in technical aspects of POPs contaminated sites including skill share workshops, etc.
		Justification for travel, why? where?	Project travel involves all national/international consultants and regional coordinators, project counterparts travel to cover all activities. This would be mainly to Accra/Abuja/Lagos/Cardiff in UK. We feel that this is not enough considering that two countries are involved. Most of the travel is of short duration of less than two weeks. Ad hoc travel to conferences is also expected to take stock of the state of the art in the technology of remediation.
		Please show the breakdown of subcontracts in the budget table.	We have now incorporated the breakdown on budget line 21 on Section E. 1 – Budget of the Project Document.
		Classification and justification for training workshops	<p>Training workshops will take place in the field and outside the countries. They include:</p> <ul style="list-style-type: none"> - Policy and regulations/enforcement - Technical/pilot scale operations - IMS/risk assessment/public education - Regional workshops with ECOWAS - Skill share workshops <p>These have been identified during the PDF-B as needed for capacity building/sustainability /replicability of the project</p>

At PPG, if any	Expected at Work Program inclusion	Expected at CEO endorsement	UNIDO response
		<p>What is the nature of the planned subcontract of \$500,000 with GRC Cardiff. With the exception of the procurement of international goods and services where appropriate, GEF resources are to be spent on activities in the recipient countries.</p>	<p>The terms of reference for this contract is given in Annex 5 (page 39). The services will be provided both in the field and in the subcontractor's premises using their facilities especially in high technology level training (training of trainers) activities including the use of gas chromatography, mass spectrometer, atomic absorption spectrometer. These trainings will be replicated by the countries' local GCs for a wider coverage in the countries. This is a sustainability factor, which is important for the project in the future.</p>
<p>Convention Secretariat None received</p>	None received		
<p>GEF Secretariat</p>			
<p>Other IAs and RDBs UNEP provided pertinent comments that need addressing.</p>	None received		
<p>STAP None received</p>	None received		
<p>Review by experts from STAP Roster N/A</p>	The STAP roster review is supportive.		
PROJECT PREPARATION GRANT (PPG)			
<p>6. Terms of Reference (relate to translating the pipeline entry criterion (met) to the WP inclusion criterion: The PDF-B objectives seem over ambitious, and include activities that should be part of the actual full project.</p>			
<p>June 2005: addressed in the revised document submitted in March 2005.</p>			
<p>7. Budget line items related to the TOR (including schedule): The budget line for international consultants is excessively high. The bulk of GEF resources should be directed towards directly supporting the participating countries. A breakdown of the budget by activity would be required.</p>			

At PPG, if any	Expected at Work Program inclusion	Expected at CEO endorsement	UNIDO response
GENERAL COMMENTS			
<p><i>(for records purpose only, not pre-conditions)</i></p> <p>The proposed project could provide welcome tools, information and models, to developing countries as they commence to implement their National Implementation Plan for the Stockholm Convention.</p>	<p>Project brief that responds to the issues raised in this review, and in particular includes:</p> <ul style="list-style-type: none"> - Evidence that contaminated sites is an urgent POPs issue in the participating countries; - Evidence that the proposed intervention is a NIP priority; - Execution arrangement that is conducive to strengthening country drivenness and national capacity; - Analysis of conditions necessary to ensure sustainability (i.e. one that does not rely solely on availability of grant financing from the financial mechanism of the Stockholm Convention): <ul style="list-style-type: none"> • Articulation of baseline/alternative; • M&E plan; • Stakeholder involvement plan; • Commitment from co-financiers; • Replication plan; and • Coordination with ASP and related initiatives. <p>Apr 2006</p> <p>The points above written at pipeline entry mostly apply today.</p>	<p>To ensure sustainability of the project, it would be helpful to (1) develop risk-based realistic standards for sites remediation and (2) to define a strategy for the remediation of contaminated land, once the toolkit is developed and adopted. This strategy should be defined within the context of a land use planning process and a health and environmental protection plan.</p>	<p>Noted</p>
SUMMARY RECOMMENDATIONS BY PROGRAM MANAGER			
<p>The GEF Secretariat would like to discuss the issues raised in this review with UNIDO, in particular pertaining to the scope of the proposal and modality for execution.</p>	<p>The points raised in this review seem too many and too significant to be addressed through a quick revision of the brief. A bilateral review meeting is planned with UNIDO on Friday April 21, 2006.</p>	<p>March 2007</p> <p>The document needs revising and resubmitting with complete documentation to address in particular the following points:</p>	<p>The Project Document + Annexes have been revised taking into consideration the GEFSEC comments of March 2007</p>

At PPG, if any	Expected at Work Program inclusion	Expected at CEO endorsement	UNIDO response
		<ul style="list-style-type: none"> - confirmation of co-financing 	<p>The Government of Nigeria has confirmed a cash contribution of \$900k and an additional \$100k cash contribution from UNIDO. Other potential donors are being contacted.</p>
<p>Issues raised in this review were discussed at length during review meeting with UNIDO, and clarified. The revised concept document reflects understanding reached between GEFSEC and UNIDO. Submission of the PDF-B is expected later on.</p>		<ul style="list-style-type: none"> - clarification of what the ppp geo-centres are about (how/where will they be established?; expression of interest and cofinancing from the partners, etc.) 	<p>Proposed set up for the local GRCs is given in para 88.</p> <p>In the long-term, the local GRCs and any large-scale and/or commercial land remediation will be taken through “ppp”.</p>
		<ul style="list-style-type: none"> - M&E plan needs strengthening, including with quantitative indicators; 	<p>M&E plan has been strengthened where quantifiable indicators are added.</p>
		<ul style="list-style-type: none"> - The staff-week costs for local and international consultants in tables b and c do not seem match. 	<p>Tables b and c have been corrected accordingly.</p>
		<ul style="list-style-type: none"> - Project management plus consultants costs adds up to 33% of GEF allocation. This appears excessive. 	<p>The budget for project management costs and consultants has been reduced to 27% of the total GEF budget. The project has a multidisciplinary field covering different areas of expertise that requires several consultancy services.</p>
		<p>The overall management costs at 13% of the GEF allocation appear excessive.</p> <ul style="list-style-type: none"> - Why is there 60k for travel? What is the justification for this? Is the travel component co-financed? 	<p>The overall management costs is reduced to \$180k, which is less than 10% of the GEF total budget.</p> <p>The 60k travel is intended to cover the travel costs of national/international consultants.</p>
		<ul style="list-style-type: none"> - What does budget line 16-00 cover? “Mission/evaluation” as indicated would seem to be covered by the agency fee. 	<p>Budget line 16-00 has been deleted.</p>
		<ul style="list-style-type: none"> - Please provide details/breakdown for the \$900K “subcontracts” budget line. 	<p>The breakdown of the subcontract budget of \$900k is as follows: GRC, Cardiff - \$500k Local NCUs - \$300K RCU in Nigeria - \$100K</p>

At PPG, if any	Expected at Work Program inclusion	Expected at CEO endorsement	UNIDO response
			Draft ToRs of subcontracts (local and international) have been prepared and given in Annex 5 of the PD. These drafts will be finalized during project implementation.
		<ul style="list-style-type: none"> - Please confirm that the “workshops/meetings” are training workshops required for the successful implementation of the project. 	The workshops/meetings are needed for the capacity building, which will also be sustainable in the long-term.
		<ul style="list-style-type: none"> - There seems to be no justification for “study tours”, particularly @150k total. 	Trainings of short duration (less than two weeks) are intended for national senior staff and decision makers to get exposed to operational/administrative/commercial aspects of GRCs, land use management, PPP, public education /awareness
		<ul style="list-style-type: none"> - Why is the GEF asked to finance “Office facilities, etc.”? 	While most of the existing office facilities will be used in NCUs, RCU and GRC offices (counted as in kind contribution) only very minimal office equipment will be purchased from the GEF resources.
		<ul style="list-style-type: none"> - Why is the GEF asked to support “travel” under the project management budget? 	The GEF budget for travel on project management will be used for the participation of the Regional and National Coordinators to meetings since UNIDO and the governments will provide only fees of these personnel.
		<ul style="list-style-type: none"> - PDFB completion/output report is required. 	PDFB completion report is given in Annex 7 of the Project Document.
		<ul style="list-style-type: none"> - Other issues raised in this review need to be addressed, including under sustainability. 	Done
		<p>21 June 2007</p> <p>Co-financing: please clarify the nature and source of additional co-financing from Nigeria. Please also state GEF and co-financing side by side in detailed budget table (see comment under financing section)</p>	Already responded in finance section above.

At PPG, if any	Expected at Work Program inclusion	Expected at CEO endorsement	UNIDO response
		Taking into account the importance of the GRCs for project implementation, UNIDO and project partners are urged to make progress on resolving the issue related to the status and location of the GRCs, particularly in Nigeria, before CEO endorsement.	Done
		The PPG report is noted, but it is still difficult to see how \$650,000 of GEF resources were spent. Please provide the outputs as listed in the list of activities at PDF approval. Overview of policy and legal framework for management of contaminated land (Output 1); Assessment of national and regional level capacity and institutions (Output 2); Identification of national expertise for pilot project (Output 3); and outline of a framework for stakeholder involvement, etc. (Output 4) Some of the points raised in the March review have not been fully addressed. (see under response to review section).	The \$650,000 committed to the implementation of PDF-B covering two countries, involved a number of group meetings, training sessions in Accra, Ghana, Abuja, Ibadan, Lagos in Nigeria and Cardiff, UK. Hiring of senior national consultants in Nigeria was also expensive based on the UNDP/Government standard rates. Currency fluctuation rates also contributed to these high costs. The outputs in the PPG completion report are now listed according to the approved PDF-B.
FURTHER PROCESSING			
Pipeline entry June 14 2005 PDF-B is recommended for CEO approval.	PM will recommend WP entry upon receipt of satisfactory revised document.	21 June 2007 PM will recommend WP entry upon receipt of satisfactory revised document.	We have noted that the project will be recommended for WP entry upon receipt of satisfactory revised document. Please note that the project has already been approved during the Council meeting and GEF Assembly held in Cape Town, South Africa in August 2006.

C) REVIEW BY EXPERT FROM STAP ROSTER (IF REQUIRED)

STAP TECHNICAL REVIEW OF GEF PROJECT PROPOSALS

Subject of the Review:

Project name: Regional project to develop appropriate strategies for identifying sites contaminated by chemicals listed in Annexes A, B and/or C of the Stockholm Convention

Requesting countries: Republic of Ghana and Federal Republic of Nigeria

Background and justification:

While most of the developing countries and the countries in economic transition banned agricultural and industrial Persistent Organic Pollutants (POPs) decades ago, they are burdened with obsolete stocks of POPs pesticides lying in unattended warehouses, buried underneath the ground without proper records and protective and monitoring measures, and PCBs contaminated and leaking electrical equipment. In addition, there is practically no knowledge/information to the public at large regarding the release of unintentionally produced highly toxic by-products namely dioxins and furans (also HCB and PCBs) from various industrial and non-industrial categories specified in Annex C, Article 5 of the Stockholm Convention.

Project clearly illustrates that presently the major types of chemicals used in Ghana and Nigeria are imported. Many of them are used in or arise from industry, agricultural and public health vector disease control. The inventory of obsolete pesticides has shown that there are stockpiles of persistent organic pollutants, which need to be disposed of since they are associated with risks to health and the environment.

- Locations where electrical equipment (particularly transformers and capacitors) were serviced
- Areas where spillages occurred during the filling of such equipment with PCBs
- Poorly designed and maintained storage sites;
- Locations where POPs wastes were/are potentially dumped (including co-disposal of hazardous and/or domestic waste);
- Waste discharges from chemical plants, where elemental chlorine is involved in the technology;
- Sewage sludge treatment plants; and
- Former organochlorine pesticides manufacturing/formulation plants;

The immediate surroundings of all leaking transformers are potential contaminated sites. This could be as a result of spillage resulting from maintenance operations of the main utility service providers. Transformers are occasionally filled or topped up with oil, which could be PCB oil. PCB- containing wastes for example may also be found at the Accra Central Station of the Electricity Company of Ghana, where broken down transformers from all over the country are repaired. This is located in the city's biggest open market where all types of goods, including vegetables, fruits, groceries, clothes and other goods are sold. There is a drainage which carries all spilled oil into the sea thus if the transformer oil is contaminated with PCBs it is a major hot spot not only contaminating the local areas but also international waters. In Nigeria similar sites contaminated with PCBs may be found at Ijora warehouse of the Power Holding Company of Nigeria.

Available evidence indicates that contents of the dirty oil (PCB contaminated oil) reservoir in both countries are unofficially and illegally sold out to:

- Enterprising women who illegally use the oil or possibly PCBs to formulate beauty creams for sale on the open market
- Welders for use in welding machines as coolants

- People who apply them as lubricants in domestic sewing machines
- Other entrepreneurs who formulate mixtures with sawdust for industrial and domestic use as fuel

Scientific and technical soundness of the project:

Following the identification of hotspots using the proposed methodology for site identification and after the selection of the economically viable and environmentally friendly remediation technologies, pilot scale remediation experiments for low cost technologies will be undertaken in both Nigeria and Ghana. Special emphasis will be given to sites that can be considered as hot spots of contamination.

Suitable training and supervisory assistance will also be provided to Ghana and Nigeria by linkage and partnership arrangement with relevant institution(s) in the developed world. Most importantly the proposed project will bring out two sets of toolkit; one for the systematic identification of land/sites contaminated by POPs and the other for methodologies to be adopted in the region for decontamination using low cost technologies. Such toolkits will benefit the whole of the Africa region.

The immediate objective of the programme includes:

- Policy and legal frameworks developed for management of contaminated lands/sites;
- Institutional capacity strengthened for mitigation of land contamination and sustainable land management.

List of outputs and activities summarized what will be done in this project.

Identification of the global environmental benefits and/or drawbacks of the project:

Project is focused to the help with removing barriers to the further adoption and effective implementation of available technologies.

This project is also very important for the developing of market with waste treatment technologies and broader competition.

However, many countries in Africa such as Ghana and Nigeria recognize the problem of sustainability that ongoing POPs project would face where they deal only with the problem of disposal of stockpiles while ignoring the related problem of subsequent cleanup of sites contaminated with POPs chemicals. Such contaminated sites if redeveloped or redeployed for agricultural or housing purposes will pose significant and immediate threats to human and animal health and the environment.

Fitting of project within the context of the goals of GEF:

Nigeria and Ghana have consequently approached UNIDO to assist them through GEF funding to develop policies and regulations for the rehabilitation of contaminated sites, capacity building in identifying contaminated land and in selection methodology for site remediation, public education, setting up of Information Management System (IMS) and at a later stage through public-private partnership and other donors support, promote proper clean up of such sites while promoting the transfer of appropriate remediation technologies conforming to Best Available Techniques (BAT) and Best Environmental Practices (BEP).

The inventory of obsolete pesticides and other Persistent Organic Pollutants (POPs) chemical stocks is an integral component of the GEF funded Enabling Activities for the development of the National Implementation Plans (NIP) underway in Ghana and Nigeria and is expected to provide national listings of chemicals contaminated sites. The listings are not, however, associated with the identification of the risks to health and the environment that these sites pose. Both countries are covering NIP activities with

the support of UNIDO and are aware of the fact that identification of contaminated sites for developing an inventory is very complicated with no available data.

Regional and/or global context:

The project is example of potential joint and useful collaboration between international bodies such as GEF and national authorities (local Government) and local private sector for future efforts, which will be undertaken pursuant to the Stockholm Convention.

Important aspect is that the real regional hotspot was selected for this model study and results can be very useful for other GEF Projects in this part of Africa or in other part of Globe.

Demonstration of this approach in the region of Africa is very suitable, because a lot of countries in this part of Africa have huge amount of contaminated sites.

The main outcome of the Full Project would involve development of policy and legal frameworks for the management of POPs contaminated lands/sites in Ghana and Nigeria and possible use of this experience to extend the results to the West African region. It would also include activities leading to enhance national and regional assessment capacity and institutional strengthening on issues of POPs contaminated lands/sites. Over and above it will establish planning details for pilot case experiment for identification and assessment of use of low cost but environmentally sound management technologies in selected hotspots in the two participating countries. The activities would also address outcome of issues of socio-economic importance namely Stakeholder Involvement and Establishment of Information Management System (IMS), Public Awareness and Environmental Education Programme.

Therefore a regional approach will have a far-reaching effect for other countries in the region to move towards environmentally sustainable economic and industrial development.

The successful destruction and clean-up of the POPs stockpile and associate waste matrices (e.g. contaminated soils and sediment) in the demonstration area would eliminate the source of heavily contaminated leachates that is continuously feeding into the Guinea Current Large Marine Ecosystem (GCLME) and consequently would obviate a major source of PCB to the GCLME's input inland waters, thus mitigating what is currently a very serious public health problem in the Region, while simultaneously addressing designated hotspots in the GCLME Region, which is the subject of a series of interventions under the International Waters Operational Programme (OP) # 8 of the GEF.

There are a number of ongoing programmes and projects, which are being supported by different donors in both countries, which, because they are closely related to the proposed project, provides leverage for obtaining further donor support. A summary of the ongoing programmes and projects is mentioned.

Project Design:

As previously enumerated the project is a response to address problems of inadequate capacity in developing countries in identifying and remediating POPs contaminated lands/sites based on systematic investigation and risk assessment studies.

With the ASP putting emphasis on environmentally sound disposal of obsolete stocks of POPs pesticides, an obvious follow-up is the need to develop capacity for the identification and remediation (if necessary) of POPs contaminated lands/sites. African countries therefore need a national/regional approach to clean the agricultural and industrial land/sites contaminated with POPs and other similar contaminants.

The overall objective of the programme is to build capacity and strengthen institutional arrangement and develop appropriate strategies for identifying sites contaminated by chemicals listed in annexes A, B and or C of Stockholm Convention. The project will also assess the viability of environmentally sound and low-cost remediation technologies. Results of these pilot project experiences will be extended to other countries in the region.

The immediate objective of the programme includes:

- Policy and legal frameworks developed for management of contaminated lands/sites;
- Institutional capacity strengthened for mitigation of land contamination and sustainable land management.

Evidence for government commitment and sustainability:

The sustainability is described. The Governments of participated countries is mentioned.

This Project Brief takes into account sustainability by linking project benefits to countries sustainable development benefits as well as through expanding the scope of contaminants beyond the POPs group to Persistent Toxic Substances (PTS).

Available evidence indicates that contents of the dirty oil (PCB contaminated oil) reservoir in both countries are unofficially and illegally sold out to:

- Enterprising women who illegally use the oil or possibly PCBs to formulate beauty creams for sale on the open market
- Welders for use in welding machines as coolants
- People who apply them as lubricants in domestic sewing machines
- Other entrepreneurs who formulate mixtures with sawdust for industrial and domestic use as fuel

Project barriers, risks, sustainability and commitment:

Project very detailed describes potential barriers and risks of project realization.

The most important topic of information campaign concerning to the application of this approach is to describe to Civil Society that is necessary to destroy all obsolete POPs stocks and contaminated wastes because the present disposal and storage in unacceptable and potential dangerous for the environment and human.

The five principal risks that need to be taken into account for this programme and project include:

- The possibility that the programme and project will not be sustainable for financial and other reasons beyond the life of the GEF intervention.

The risk is low due to the fact that the capacity building achieved in the project would be broadly applicable to many similar toxic contaminants.

- The possibility that there exists inadequate and ineffective political will, government support and actual commitment for the Programme and Projects.

This is low since the project puts emphasis on policy/legal frame work, counties driven countries ownership approach and will be implemented under the supervision of a committee at Ministerial level indicating full commitment.

- The possibility of inadequate time frame in which to complete and achieve the outlined tasks.

The risk is none due to the fact the implementation will be based on a work plan that will be monitored periodically and remedial action and adjustments made to meet the timely inputs to achieve the outputs.

- The possibility of inadequate and ineffective stakeholder participation during the project as well as the possibility of conflicting long term stakeholder priorities.

The risk is low due to the fact that during the preparation of the country NIPs and the present project brief all the stakeholders played an important role and even wanted expanded coverage of toxic contaminants and not restrict only to POPs.

The capacity building, especially in public awareness, environmental education, NGOs and stakeholders' involvement and establishment of a well functioning IMS will provide the long term knowledge upgrade of public, civil servants and civil society which will have its own momentum for providing information on POPs land pollution and consequent impact on other environmental matrices including water bodies.

In the project sufficient cooperation/linkage with projects related to Stockholm Convention in the region is envisaged in the implementation of the project.

During the project brief preparation there has been a great cooperation and understanding and full involvement and interaction among the national experts, several Ministries and NGOs in order to keep the partnership, countries ownership and countries driven approach.

There will be no creation of any new stand-alone centre but only existing institutions/laboratories will be upgraded thereby increasing the probability of long-term sustainability and replicability.

Experience gained during project brief preparation has resulted in improved understanding of the barriers to be overcome during full project implementation. The major barriers identified to date include inadequate national policy on POPs, inadequate policy and legal framework, inadequate comprehensive scientific/socio-economic data, ineffective enforcement of regulations and legislation, lack of a national classification system, absence of clear responsibilities and limited coordination, inadequate financial resources, inadequate awareness and information, lack of capacity and experience in selecting environmentally sound cost effective technology for soil remediation, lack of capacity to conduct risk management decision for contaminated land/site remediation.

Replicability of the project:

Experiences gained during the project realization in both countries can be very helpful for other countries especially as far as the better understanding of potential barriers during project implementation in other countries. This project can lead to optimum procedure with using of experiences and results, what can be important especially as far as the applications in other countries.

Most importantly the proposed project will bring out tool kits for systematic identification of sites contaminated by POPs and methodologies to be adopted in the region for decontamination of the contaminated sites. Such tool kits could eventually benefit the whole Africa region.

Project funding:

Project will be funding by GEF, the Government of Nigeria and Ghana. As I mentioned, the guarantee of national partners should be suitable if will be done officially as soon as possible.

The items of incremental costs and project financing tables look reasonable, but it is impossible to evaluate during the short period and without more detailed description of them, how are realistic.

Linkages to other programs and action plans at regional or sub-regional levels:

Direct linkage with the development of National Implementation Plans in the Parties through GEF funded Enabling Activities exists and can be very useful as a potential additional application of this approach and technology or potential future co-operation of countries of Africa in the destruction of waste in both countries. The experiences and information from this project realization should be a valuable resource for many others.

Other beneficial or damaging environmental effects:

Projects also briefly summarize global benefits for other GEF projects such conservation of biological diversity or improved water quality and explain the potential effects of environmental present POPs for these global problems.

Degree of involvement of stakeholders in the project:

The role of stakeholders in the phase of Project preparation is described as a unique and can be very helpful during the future steps of project implementation and realization. Project will organize and covered some additional workshops and activities for better public understanding of the project.

Throughout the project preparation stakeholders' participation and discussions were given cardinal importance and this will continue to be a major feature of the project implementation. The project will stress participation within the two countries through workshops, IMS and dissemination of information giving transparency. NGOs along with relevant ministries will be part of the public awareness and environmental education programmes.

Summary:

The Project "Regional project to develop appropriate strategies for identifying sites contaminated by chemicals listed in Annexes A, B and/or C of the Stockholm Convention" has a great relevance to global and regional solution of POPs problems as far as the disposal of obsolete POPs stocks, wastes and contaminated environmental matrices such as soil or sediments.

Project defines expected risks and barriers, which can be limited steps for application in the developing countries and in the countries with economy in transition.

Based on my professional experiences, I consider this project as very well prepared and selected approach as suitable for the destruction on POPs stocks and wastes without additional harmful environmental releases.

I recommend this project to accept.

Moscow, 21/03/2006

Prof. Dr. Ivan Holoubek

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UNIDO RESPONSE TO STAP REVIEW

The STAP Review given under Annex C is self-explanatory and does not raise any critical comments or queries regarding the project brief. It broadly agrees with the project design, objective, outputs and the activities that will be done to achieve the outputs, sustainability and replicability. Under project funding it specifically says “the items of incremental costs and project financing tables look reasonable, but it is impossible to evaluate during the short period and without more detailed description of them, how are realistic”. The authors of the project brief are aware of this and further refinement will be made during the full project preparation stage. Overall the STAP review is favourable to the contents of the project brief.

3. **JUSTIFICATION FOR MAJOR CHANGES IN THE PROJECT, IF ANY²**
n/a

4. **REQUIRED ATTACHMENTS**

- a) Project Appraisal Document
- b) Report on the Use of Project Preparation Grant (**see Annex 7**)
- c) Confirmed letters of commitments from co-financiers (with English translations) (**see Annex 8**)
- d) Agency Notification Template on Major Project Amendment and provide details of the amendment, if applicable.

² Provide justifications for any major amendments in the project, including an increase of project amount exceeding 5% from the amount approved by the Council. Justification for such amendments and the project document will be circulated to the Council for a four-week review period. For procedures to the approval for major amendments, refer to the Council paper: [*Project Cycle Update: Clarification of Policies and Procedures for Project Amendment and Drops/Cancellations, GEF/C.24/Inf.5*](#)



UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

PROJECT DOCUMENT

Project of the Governments of Ghana and Nigeria (Regional)

Project number:	GF/RAF/07/XXX
Project title:	Regional project to develop appropriate strategies for identifying sites contaminated by chemicals listed in Annexes A, B and/or C of the Stockholm Convention
GEFSEC Project ID:	2720
Thematic area code:	B16
Starting date:	September 2007
Duration:	4 years
Project site:	Ghana/Nigeria
Government Co-ordinating agency:	
Counterpart: Executing agency/ cooperating agency:	Ministry of Environment and Science, Accra, Ghana Federal Ministry of Environment, Abuja, Nigeria Regional Industrial Development Office in Abuja (UNIDO)
Project Inputs:	
GEF	US\$ 2,650,000 (including PDF-B of US\$ 650,000)
UNIDO inputs:	US\$ 200,000 (in-kind) US\$ 100,000 (in cash)
Counterpart inputs:	
- Govt. of Ghana:	US\$ 250,000 (in-kind)
- Govt. of Nigeria:	US\$ 250,000 (in-kind) US\$ 900,000 (in cash)
- Other Donors:	
GRC	US\$ 250,000 (in-kind)
DANIDA, CIDA, mining industries in Ghana, GTZ, Germany, ECOWAS, etc.	US\$ 150,000 (in kind)
Grand Total:	US\$ 4,750,000
Support costs (10%):	US\$ 265,000

BRIEF DESCRIPTION

The objective of the proposed project is to build capacity in Ghana and Nigeria to develop strategies to identify land/sites contaminated with persistent organic pollutants (POPs) as implicated in the Stockholm Convention. It deals with barrier removal in the areas of intervention with policy/legal framework, enforcement, capacity building in the region to develop systematic approach in identification of lands/sites contaminated with POPs, to collect information, develop and manage an Information Management System (IMS) on contaminated sites, social economic indicators affecting human health and the environment due to POPs and other persistent toxic substances (PTS) exposures from contaminated land and other sources, to identify, monitor and analyse samples from

POPs contaminated lands, set up model experiments to develop appropriate environmentally and economically acceptable remediation technologies for POPs contaminated land/sites based on risk assessment involving all relevant stakeholders. The project is based on the countries' National Implementation Plans (NIPs) to demonstrate how they will be able to implement the obligations under the Stockholm Convention. The participating countries will build up capacity in the region to identify and prioritize POPs contaminated sites and develop suitable technologies for land remediation in accordance with best available techniques and best environmental practices (BAT/BEP). The project is closely linked to Article 6 Section 1(e) of the Stockholm Convention, which states that Parties shall "endeavour to develop appropriate strategies for identifying sites contaminated by chemicals listed in Annex A, B or C, if remediation of those sites is undertaken, it shall be performed in an environmentally sound manner". The project will be implemented through National Coordinator Units set up in Ghana and Nigeria under the supervision of a Regional Coordination Unit (RCU) set up in the UNIDO Regional Development Office, Abuja, Nigeria. Based on the project objectives, the following outputs will be achieved:

- i. Establishment of an organizational set up to implement and monitor the progress of the project.
- ii. Establishment of regional policy and national legal framework for the management of contaminated sites.
- iii. Establishment of national and regional capacity building and institutional strengthening including risk assessment/management.
- iv. A toolkit for selection of environmentally sound and economically feasible remediation technologies in Ghana and Nigeria.
- v. Establishment of IMS and Framework for Stakeholders and Public Education Awareness Programme.
- vi. Regional Monitoring and Evaluation Plan.

The proposed project will bring out toolkit for the systematic identification of sites contaminated by POPs and methodologies to be adopted in the region for the decontamination of the contaminated sites that could eventually benefit the whole Africa region and beyond. Though the proposed project is limited to the identification of sites contaminated by POPs chemicals listed under Annex A, B or C of the Stockholm Convention, the methodology established through this project could be modified for the identification of sites contaminated by other chemicals.

The GeoEnvironmental Research Centre (GRC) located in Cardiff University, UK with long standing experience in industrial and agricultural land remediation will cooperate as a technical partner making available its expertise and technical facilities during the implementation of the project. The project takes into account sustainability and reproductibility and above all incorporates regional context for future outreach activities. Lessons learned and experience gained will be useful in systematic identification of POPs contaminated lands, risk assessment/prioritization and application of appropriate remediation technology.

Approved:

Signature:

Date:

Name and title:

On behalf of:

Government of Ghana _____

Government of Nigeria _____

UNIDO _____

TABLE OF CONTENTS

	Page
SECTION A. CONTEXT	6
A.1 Context/history	6
A.2 Technology Context	6
A.3 The Stockholm Convention on POPs	7
A.4 Barriers to project implementation	9
A.5 Linkages to other programmes in the region	13
A.6 Linkages to development of objectives of the national/regional Authorities and UN common development goals	16
A.7 Civil Society involvement	16
A.8 Regional approaches to POPs stockpile destruction	16
A.9 Inclusion of other countries in the region	17
SECTION B. REASONS FOR UNIDO ASSISTANCE	18
SECTION C. THE PROJECT	19
C.1 Objective of the project	19
C.2 The UNIDO approach	19
C.3 RBM code and thematic area code	22
C.4 Expected outcomes	22
C.5 Outputs and activities	23
C.6 Risks, Sustainability and Commitment	25
C.7 Timelines of the activities – Tentative Work plan	27
SECTION D. INPUTS	29
D.1 Counterpart inputs	29
D.2 UNIDO inputs	29
D.3 GEF	29
SECTION E. BUDGET	30
E.1 Project Budget	30
E.2 Co-financing and budget	32
SECTION F. MONITORING, REPORTING AND EVALUATION	35
SECTION G. PRIOR OBLIGATIONS AND PREREQUISITES	36
SECTION H. LEGAL CONTEXT	37
ANNEXES	
Annex 1 Incremental Cost Analysis	
Annex 2 Logical Framework (Logframe) Analysis	
Annex 3A STAP Review	
Annex 3B UNIDO Response to STAP Review	
Annex 3C FAO Comments and UNIDO Response	
Annex 4 Monitoring and Evaluation Plan	
Annex 5 Terms of Reference for Consultants and Subcontracts	
Annex 6 Results of PDF-B implementation	
Annex 7 PPG Completion Report	
Annex 8 Co-financing Letters	

LIST OF SELECTED ACRONYMS AND ABBREVIATIONS

ASP	Africa Stockpiles Programme
BAT	Best available techniques
BEP	Best environmental practices
CBOs	Community Based Organizations
CEA	Country Environment Analysis
CIDA	Canadian International Development Agency
CLR	Contaminated Land Report
CTA	Chief Technical Advisor
DANIDA	Danish International Aid Agency
DFID	Department for International Development
DPR	Department of Petroleum Resources
EA	Executing Agency
EIA	Environmental impact assessment
EHF	Environmental Health Fund
EPA	Environmental Protection Agency
ESEID	Environmentally Sustainable Economic and Industrial Development
EU	European Union
FAO	Food and Agricultural Organization of the United Nations
FMENV	Federal Ministry of Environment
FML&P	Federal Ministry of Labour and Productivity
FOTE	Friends of the Environment
GC	Geoenvironmental Centre
GC-ECD	Gas chromatograph – Electron capture detector
GCLME	Guinea Current Large Marine Ecosystem
GEF	Global Environment Facility
GHS	Global Harmonised Labelling System
GRC	Geoenvironmental Research Centre
HCB	Hexachlorobenzene
HCH	Hexachlorocyclohexane
HPLC	High Pressure Liquid Chromatography
HR GCMS	High Resolution Gas Chromatography
IA	Implementing Agency
IAEA	International Atomic Energy Agency
IC	Incremental cost
ICP	Inductively coupled plasma
IFCS	Intergovernmental Forum on Chemical Safety
IMS	Information Management System
INC	Intergovernmental Negotiating Committee
IOMC	Intergovernmental Organization for the Sound Management of Chemicals
IPEN	International Pesticides Elimination Network
IPEP	International Pesticide Elimination Project
LRTAP	Long Range Transport of Environmental Pollutants
MDG	Millennium Development Goals
MEAs	Multilateral Environmental Agreements
MoU	Memorandum of Understanding
NACWC	National Authority on Chemical Weapons Convention
NAFDAC	The National Agency for Food and Drug Administration and Control
NCS	National Classification System
NES	Nigerian Environmental Society
NEST	Nigerian Study Team
NGO	Non-governmental Organization
NIP	National Implementation Plan
NPA	Nigerian Ports Authority
NPD	National Project Coordinator
OP	Operational Programme
OSPAR	Oslo-Paris Accord

PAHs	Polyaromatic hydrocarbons
PBDE	Polybrominated diphenylethers
PC	Programme Coordinator
PCB	Polychlorinated biphenyl
PCDD	Polychlorinated dibenzo-p-dioxin
PCDF	Polychlorinated dibenzofurans
PCP	Pentachlorophenol
PDF	Project Development Facility
POPs	Persistent organic pollutants
PPP	Private-Private Partnership
PPRSD	Plant Protection and Regulatory Services Department
PSC	Project Steering Committee
PTS	Persistent toxic substances
RBDM	Risk Based Decision Making
RCU	Regional Coordination Unit
R&D	Research and Development
RESCUE	Regeneration of European Sites in Cities and Urban Environment
RIDC	Resource Industrial Development Centre
RIDF	Resource Integrated Development Foundation
RIDO	Regional Industrial Development Office
RMC	Regional Ministerial Committee
RPCU	Regional Programme Coordinator Unit
RSC	Regional Steering Committee
SAICM	Strategic Approaches for International Chemicals Management
SUE	Sustainable Urban Environment
TEQ	Toxic equivalent
TER	Terminal Evaluation Report
UNDP	United Nations Development Programme
UNECE	United Nations Economic Commission for Europe
UNEP	United Nations Environment Programme
UNIDO	United Nations Industrial Development Organization
URIDO	UNIDO Regional Industrial Development Office
WB	The World Bank

SECTION A. CONTEXT

A.1 Context/history

1. The post war period made a big leap in the evolution of chemical and allied industries in that mankind has become very much dependent on chemicals not only for its very basic standard of living but also in keeping a high standard of living. While mankind owes its survival to the use of chemicals in agriculture, public health and control of ailments and diseases, one of the major problems facing the global planet is the innumerable number and vast amounts of chemicals that have been produced, used, stored and disposed of over almost half a century. Many of these chemicals used in the past, understandably, have been used, probably within the law, but without all the information on their long-term persistence, mobility in the environment and their ability to bioaccumulate causing toxic effects. The consequent after effect is that it has left certain persistent toxic residual chemicals, especially the so called 'dirty dozen' implicated in the Stockholm Convention, in the environment that they not only get transported from one matrix to another but also tend to move up the food chain and bioaccumulated in humans, other mammals, avian species, wildlife, etc. In the process with proven chronic toxicity they can interfere at three levels of biodiversity through generic level; population species level and community/ecosystem level.
2. While most of the developing countries and the countries with economies in transition banned agricultural and industrial persistent organic pollutants (POPs) decades ago, they are burdened with obsolete stocks of POPs pesticides lying in unattended warehouses, buried underneath the ground without proper records, protective and monitoring measures, and PCBs contaminated and leaking electrical equipment. In addition, there is practically no knowledge/information to the public at large regarding the release of unintentionally produced highly toxic by-products namely dioxins and furans as well as hexachlorobenzene (HCB) and polychlorinated biphenyls (PCBs) from various industrial and non-industrial categories specified in Annex C, Article 5 of the Stockholm Convention. The World Bank, GEF and other bilateral donors have been actively engaged in helping African countries under the Africa Stockpiles Programme (ASP) in getting rid of obsolete stocks of POPs pesticides and capacity building in avoiding future accumulation of stockpiles of obsolete pesticides.
3. However, many countries in Africa such as Ghana and Nigeria recognize the problem of sustainability that ongoing POPs project would face where they deal only with the problem of disposal of stockpiles while ignoring the related problem of subsequent cleanup of sites contaminated with POPs chemicals. Such contaminated sites if redeveloped or redeployed for agricultural or housing purposes will pose significant and immediate threats to human and animal health and the environment. It is always cheaper to take precautionary and preventive action before using contaminated land for rural or urban development or put into agriculture so as to avoid expensive mistakes such as the Love Canal saga in the USA. Ghana and Nigeria have a very vibrant mining and oil producing industries in addition to other chemical industries, which are potential contaminators of POPs implicated in the Stockholm Convention and also those outside the Convention. Based on the findings of the ongoing NIPs in the two countries (also referred to in paras 16-19), Ghana and Nigeria have consequently approached UNIDO to assist them through GEF grant to develop policies and regulations for the rehabilitation of contaminated sites, capacity building in identifying contaminated land and in the selection of methodology for site remediation, public education, setting up of IMS and at a later stage through public-private partnership and other donors support, promote proper clean up of such sites while promoting the transfer of appropriate remediation technologies conforming to best available techniques (BAT) and best environmental practices (BEP).

A.2 Technology Context

4. Chemicals are essential requirements for modern society and need to be managed properly in order to achieve a suitable level of agricultural and industrial development and a high level of environmental and human health protection.

5. Presently, the major types of chemicals used in Ghana and Nigeria are imported. Many of them are used in or arise from industry, agricultural and public health vector disease control. Human exposure to these chemicals occurs through diet, occupation, accidents and indoor applications, particularly in rural communities and also from agricultural use. The inventory of obsolete pesticides has shown that there are stockpiles of persistent organic pollutants (POPs), which need to be disposed of since they are associated with risks to health and the environment.
6. The inventory of obsolete pesticides and other POPs chemical stocks is an integral component of the GEF funded Enabling Activities for the development of NIPs underway in Ghana and Nigeria and is expected to provide national listing of chemicals contaminated sites, which are not, however, associated with the identification of the risks to health and the environment that these sites pose. Both countries are covering NIP activities with the support of UNIDO and are aware of the fact that identification of contaminated sites for developing an inventory is very complicated with no available data.
7. Article 6, Section 1(e) of the Stockholm Convention states that Parties shall “endeavour to develop appropriate strategies for identifying sites contaminated by chemicals listed in Annex A, B or C; if remediation of those sites is undertaken, it shall be performed in an environmentally sound manner”. The implication is that it is incumbent on countries to undertake rehabilitation of contaminated sites following their identification and prioritisation based on risk assessment/management. Furthermore, the WB/GEF ASP project mentioned earlier, even while recognizing the importance of clean up of contaminated sites, has not included this aspect in its programme of work except in the case of Mali where there was consensus between partners that the severity of contaminated land requires attention. It is therefore important for all African countries to take measures and provide a systematic approach to deal with contaminated sites.

A.3 The Stockholm Convention on POPs

8. On 22 May 2001, the Stockholm Convention on POPs was adopted and entered into force on 14 May 2003 after the 50th country ratified the Convention. This Convention has led to a new GEF/POPs Draft Operational Programme (OP 14), and the proposed project will serve as a barrier reduction exercise that can help to inform future activities mandated or encouraged under the provisions of the Convention when it enters into force for parties.
9. Article 6 of the agreed text addresses the identification and management of (POPs) wastes. It requires such wastes to be “managed in a manner protective of human health and the environment.” Parties must “develop appropriate strategies for identifying stockpiles, products and articles in use, and wastes covered by the treaty, after which they must manage the stockpiles in a “safe, efficient, and environmentally sound manner.” The Convention requires that disposal of such wastes be done in such a way that the POP content is “destroyed or irreversibly transformed” so that it is no longer a POP, or “otherwise disposed of in an environmentally sound manner when destruction or irreversible transformation does not represent the environmentally preferable option or the persistent organic pollutant content is low.”
10. In particular Article 6.1(e) specifically says “endeavour to develop appropriate strategies for identifying sites contaminated by chemicals listed in Annex A, B, or C, if remediation of those sites is undertaken it shall be performed in an environmentally sound manner”
11. Article 10 clearly puts great emphasis on public information, awareness and education to policy/decision makers, provide to the public of all available information on POPs including impact on their health and environmental effects, importance given to public participation ‘training workers, scientists, educators and technical and managerial personnel’.
12. Article 10.1(f) and specifically advocate “development and exchange of educational and public awareness materials, education and training programmes at the national and international levels”.

13. Article 11 puts emphasis on Research and Development (R&D) and monitoring where it specifically covers 'sources and release into the environment, presence, levels and trends in humans and environment, socio-economic impacts and harmonized methodologies for making inventories of sources and analytical techniques for the measurement of releases'. Further, Article 11.2 (b) asks among others for strengthening national scientific and technical research capabilities, particularly in developing countries.
14. It is always difficult to look into POPs contamination in isolation, since environment including land is exposed to wide variety of man-made activities resulting in long- and short-term chemical and biological contamination. The proposed project will also keep in its scope and coverage as much as possible some of the chemicals under the Oslo-Paris Accord (OSPAR), however, without losing the main project objective of POPs contaminated sites. The OSPAR covers: PCCDs, PCDFs, PCBs, PAHs, PCP, HCH (technical and pure quality), cadmium, lead, nonylphenols, specific xylenes, some phthalates, etc.
15. Ghana and Nigeria are both signatories of the Stockholm Convention. Ghana ratified the Convention on 30 May 2003 while Nigeria ratified it on 24 May 2004. Both countries have developed their NIPs and heading towards implementation of identified priorities.
16. The results of inventories carried out in Ghana and Nigeria as part of the preparation of their NIPs indicated that there are several hundreds of metric tonnes of stockpiles/obsolete pesticides, which may include POPs pesticides. Sites where the stockpiles are stored need to be investigated for possible soil and ground water contamination. Potential sources of POPs releases in Ghana and Nigeria include:
 - locations where electrical equipment (particularly transformers and capacitors) were serviced;
 - areas where spillages occurred during the filling of such equipment with PCBs;
 - poorly designed and maintained storage sites;
 - locations where POPs wastes were/are potentially dumped (including co-disposal of hazardous and/or domestic waste);
 - waste discharges from chemical plants, where elemental chlorine is involved in the technology;
 - sewage sludge treatment plants; and
 - former organochlorine pesticides manufacturing/formulation plants.
17. The immediate surroundings of all leaking transformers are potential contaminated sites. This could be as a result of spillage resulting from maintenance operations of the main utility service providers. Transformers are occasionally filled or topped up with oil, which could be PCB oil. PCB- containing wastes for example may also be found at the Accra Central Station of the Electricity Company of Ghana, where broken down transformers from all over the country are repaired. This is located in the city's biggest open market where all types of goods, including vegetables, fruits, groceries, clothes and other goods are sold. There is a drainage, which carries all spilled oil into the sea. Thus, if the transformer oil is contaminated with PCBs, it is a major hot spot not only contaminating the local areas but also the international waters. In Nigeria, similar sites contaminated with PCBs may be found at Ijora warehouse of the Power Holding Company of Nigeria.
18. Available evidence indicates that contents of the dirty oil (PCB contaminated oil) reservoir in both countries are unofficially and illegally sold out to:
 - enterprising women who illegally use the oil or possibly PCBs to formulate beauty creams for sale on the open market;
 - welders for use in welding machines as coolants;
 - people who apply them as lubricants in domestic sewing machines; and
 - other entrepreneurs that formulate mixtures with sawdust for industrial and domestic use as fuel.

19. There are unconfirmed reports of volumes of pesticides containers buried at some specific locations. For example in Ghana, it is alleged that the pesticides containers, which might include POPs pesticides, were buried in the early 1970's at the premises of the Plant Protection and Regulatory Services Department (PPRSD) at Pokuase in the Ga District of the Greater Accra Region and also at the Tono and Veia Irrigation projects in the Upper East Region. These locations are within important river basins such as the Densu and Volta. Ghana is very much concerned about potential POPs contamination of land and specifically refers to its priorities of action in the NIP as "carry out further investigations to identify contaminated sites, secure and label sites, identify potential remediation technologies available, establish regulation and guidelines for clean-up of contaminated sites". It requests specially technical and financial support over a period of 5-10 years. Similarly in Nigeria, the ASP project has identified some warehouses where obsolete pesticides including POPs are stocked namely Lagos, Kaduna, Ibadan and Kano. The Government of Nigeria's concern is on various studies indicating presence of POPs (pesticides and PCBs) in environmental samples, food, fish, wildlife and human milk. Even though these studies are old, they are concerned among other things, about soil contamination as one of the sources from waste stockpiles of POPs. According to the NIP, a study carried out in 2002 indicated a wide spread contamination of Nigerian soils covering farmland, industrial soils and refuse dump soils. The noted presence of POPs despite studies showing "relatively short half-lives of POPs in Nigerian soils" also raised concern. With many unknown factors, data gaps and lack of capacity to identify and monitor contaminated land, Nigeria is giving one of the priorities to capacity building contaminated soil management.

A.4. Barriers to project implementation

20. Experience gained during the project brief preparation has resulted in an improved understanding of the barriers to be overcome during the full project implementation. The major barriers identified to date include:

Inadequate National Policy on POPs

21. Appropriate policies and regulations constitute the first two axes in managing contaminated sites. This calls for legislation and legal framework.
22. A Government policy on POPs is often part of a broader policy on chemicals management. The current policy direction for the management of potentially bio-accumulative and toxic substances in both Ghana and Nigeria is inadequate and incapable of dealing with the specific requirements of the Stockholm Convention. An explicit policy needs to be established to implement the Stockholm Convention and to promote POPs free agriculture, health and industry sectors and at the same time ensure protection of the environment and the natural resources.

Inadequate policy and legal framework

23. In both Ghana and Nigeria, there are a number of laws that have some relevance to POPs and persistent toxic substances (PTS). Many of these laws, however, do not address the dangers posed to human and the environment by the chemicals in question. Where they may be relevant, the institutions that deal with them do not have the resources to monitor or research into their effects on health and the environment and do not have adequate disposal guidelines as required by the Convention.

Ghana

24. In Ghana, there are currently seventeen (17) existing chemical-related legislations. Although these laws are not specific to POPs, they provide a framework for the management of all chemicals and pesticides. The existing laws in the country are listed as follows:
- The Environmental Protection Agency (EPA) Act, (Act 490) of 1994. This Act, which established the Environmental Protection Agency, seeks among other things to control the volumes, types, constituents and effects of waste discharges, emissions, deposits or other sources of pollutants and/or substances which are hazardous or potentially dangerous to the quality of life, human health and the environment through the issuance of environmental permits and pollution abatement notices.

- The Pesticides Control and Management Act, 1996 (Act 528) provides rules for registration, manufacturing, use, disposal and non-disclosure of information, classification, licensing, reporting, labelling and inspections of pesticides.
- The Food and Drugs Law, 1992 (PNDCL) 305B, which was enacted to control the manufacture, import, export, distribution, sale, use and advertisement of foods, drugs, cosmetics, household chemicals and medical devices are made from several chemical substances that may have a negative impact on health and environment if the manufacture, distribution and disposal are not controlled and managed properly.
- The Factories, Offices and Shops Act, (Act 328) 1970, which seeks to protect the health and safety of workers from the dangers posed by chemicals to employees in the working environment.
- The Standards Decree, 1973 (NRCO 1273)
- The Draft Policy and Bill on Occupational Safety and Health, 2000, which seeks to ensure that measures are instituted to ensure the attainment of optimum health for workers in all occupations in Ghana
- The Mercury Law, 1989
- The Minerals (Off-Shore) Regulations, 1962 (as amended)
- The Oil in Navigable Waters Act, 1964
- Infectious Disease Ordinance (Cap 78)
- The Prevention and Control of Pests and Diseases of Plants Act, 1965 (Act 307)
- Prevention of Damage by Pests Decree, 1968 (NLCD 245)
- Cocoa Industry Regulations, 1968 (NLCD 278)
- Merchant Shipping (Dangerous Goods) Rules, 1974 (LI 971)
- Customs, Excise and Preventive Service Law
- Local Government Act, 1992 (Act 458)
- Export and Import Act, 1995 (Act 528)
- Environmental Assessment Regulations, 1999 (LI 1652)

Nigeria

25. Similarly, in Nigeria, there are a number of laws set up under the Federal Ministries of Environment, Health and Agriculture, which deal with chemicals and hazardous wastes. Some of these laws are:

- S.1.8 National Environmental Protection (Effluent Limitation) Reg. 1991
- S.1.9 National Environmental Protection (Pollution Abatement in Industries and Facilities Generating Wastes) Reg. 1991
- S.1.15 National Environmental Protection (Management of Solid and Hazardous Wastes), Reg. 1991
- FEPA Decree 58 of 1988 (Amended by FEPA Decree 59 of 1992)
- FEPA Decree 86 – Environmental Impact Assessment 1992
- FEPA Sectoral Guidelines and Standards 1991
- Factories Act 1990
- Harmful Waste (Special Criminal Provisions etc.) Decree 1988
- NAFDAC Decree 15 1993
- Pesticides Registration Regulation 1996
- Pharmacy Council Decree 1992
- IPAN Decree No. 100 of 1992
- Customs & Excise Act 1990
- Standards Organization of Nigeria
- Occupational Safety & Health Guidelines
- Nigerian Ports Authority Act
- Nigerian Maritime Decree
- DPR Guidelines & Standards for the Petroleum Industry in Nigeria (2002)
- NDLEA Decree

26. The National Agency for Food and Drug Administration and Control (NAFDAC) also set up laws to regulate food, drugs, cosmetics, medical devices, bottled water and chemicals.
27. Additionally, the Factories Act 1990, Chapter 126 Vol. III Laws of the Federation of Nigeria, being implemented by the Factories Inspectorate Division of the Federal Ministry of Labour and Productivity (FML&P) concerns itself with the occupational health and safety of workers from the chemicals and other risks in the workplace. Other Ministries/Agencies that have relevant laws are the following:
 - The Produce Inspection Service Divisions of the Federal Ministry of Commerce imports chemicals and oversees the quality of produce leaving the country. It also provides industry analysis and statistical information, as well as business counselling and export assistance.
 - The Nigerian Ports Authority (NPA), which is responsible for ensuring the safe transportation, loading, unloading and handling of goods including chemicals, carriage, and embarking/disembarking of passengers in or from sea going vessels. Efforts are made to ensure that all hazardous materials imported and exported are transported in accordance with international regulations and the manufacturer's recommendations.
 - The Federal Ministry of Industry, though not an institutional manager of chemicals and pesticides, supervises industries and companies that handle chemicals in the course of production.
 - The Department of Petroleum Resources (DPR), in cooperation with Federal Ministry of Environment (FMENV), regulates the petroleum sector (both upstream and downstream). This includes regulation of hazardous materials, consignors, consignees of drilling chemicals, exploration, formulation, refineries, distribution, import and export of petroleum products.
 - The Nigerian Custom Service is responsible for the control of imports and exports of all goods including chemicals. It also ensures that the imports and exports are in accordance with the national and international regulations.
 - The National Authority on Chemical Weapons Convention (NACWC), located in the office of the Secretary to the Government of the Federation, ensures the implementation of Nigeria's obligations under the chemical weapons convention.
28. It is thus clear from the above that there is a need for harmonization of all these responsibilities at the government level. It is also necessary for greater efficiency and effectiveness to strengthen capacity for enforcement of laws and regulations through provision of adequate funding to the relevant government agencies, improvements in management capacity, adequate equipment, transport and staff career development.
29. On the other hand, the near total absence of legislation on issues related contaminated lands/sites is the first major barrier to their identification and management. Yet, it is universally acknowledged that the provision of appropriate legislation is "the beginning of wisdom" in this regard. A suitable legislative framework providing the rules of management for contaminated lands/sites including economic incentives, but also sanctions tied to compliance or failures is crucial. Difficulties in the development of suitable legislation could include:
 - low prioritisation to draft and pass such legislation;
 - often fragmented nature of responsibility for management of chemicals and contaminated lands;
 - inadequate data and information that normally underpins such legislation; and
 - considerable cost of such an undertaking including enforcement.

Inadequate comprehensive scientific/socio-economic data

30. The formulation of suitable and effective management framework for contaminated lands should be underpinned by adequate scientific and socio-economic data and information.

The information gathered must cover sources, pathways, fate and transport, human and ecosystem exposure, toxicology and ecotoxicology. A detailed understanding of the socio-economic indices must complement it. Decision makers must take account of threats posed and costs incurred by possible changes and identify realistic measures needed to ensure effective management of contaminated lands. Difficulties in achieving scientific and socio-economic data include:

- absence of comprehensive scientific data on toxic chemicals and the risks they pose to humans, wildlife and the environment;
- insufficient analytical facilities for hazard/risk assessment;
- lack of tools for proper assessment of the socio-economic aspects of remediation and contaminated land management;
- limited technical expertise to enable rational choice of remediation technologies and ensure successful implementation; and
- unsatisfactory environmental practices.

Ineffective enforcement of regulations and legislation

31. Even in countries where there is a semblance of legislation, there is no functional enforcement and surveillance procedure to ensure the effectiveness of such laws. Designing an effective system of enforcement and linking this to appropriate monitoring strategies is a complex task that calls for ongoing inputs in terms of training and resources. The difficulties in providing this necessary outfit include:

- providing suitable training and resources to achieve a critical mass of personnel with the requisite skills and equipment to enforce envisaged legislation;
- near absence of resources to undertake required inspection and pursue offenders and reward those who comply ; and
- lack of technical and management capacity for monitoring to underpin enforcement.

Lack of a National Classification System

32. Setting priorities for remediation of contaminated lands require the existence of a rational approach for contaminated land site identification methodology and site classification system. A National Classification System (NCS) affords a vantage platform based on scientific and socio-economic considerations for such judgement. The difficulties in adopting such a system include:

- lack of capacity to develop a NCS;
- lack of implementation of a global harmonized labelling system (GHS);
- weakness in the procedures of risk assessment; and
- lack of necessary legislation to underpin such a system.

Absence of clear responsibilities and limited coordination

33. The multi-sectoral nature of chemicals management in most developing country situations results in a lack of coordination, which is a *sine qua non* in the management of contaminated lands. Assigning responsibilities explicitly must be dealt within any framework legislation on contaminated lands. Barriers in assigning and agreeing responsibilities include:

- competition amongst the various ministries and departments concerned with the management of contaminated land;
- absence of positive engagement of key players and potential problems with assumption of liability; and
- historical actions carried out in good faith but also in ignorance of potential for future problems.

Inadequate financial resources

34. The implementation of remediation of contaminated lands requires adequate financial resources. In developing country situation, lack of funding is and will always be a problem for reasons, which include:

- often limited budgets from governments and therefore no matching funds from bilateral/multilateral donors;
- competing demands for limited resources and lack of mechanism for evaluating comparative seriousness of competing problems;
- difficulty in applying the “polluter pays” principle while ensuring needed improvement and actions; and
- difficulties in ensuring the rational use of meagre resources.

Inadequate awareness and information

35. In most developing countries, information is not available to stakeholders who are in a position to influence decisions on contaminated land/site management. Provision of vital scientific as well as socio-economic data to politicians and policy makers is generally inadequate. Awareness for stakeholders on the requirements and practices for effective contaminated lands management needs to be improved. Difficulties in achieving this include:
- limited capacity to collect relevant data and information on issues of contaminated sites and their socio-economic impacts;
 - insufficient and limited effective tools to communicate appropriate messages in a form that can be easily understood and relevant to the target audience;
 - inadequate resources to undertake outreach campaigns; and
 - low level of general awareness.

Lack of capacity and experience in selecting environmentally sound cost-effective technology for soil remediation

36. It is always difficult for developing countries to adopt well-proven expensive technologies followed in industrialized countries mainly due to lack of know-how, and the proprietary nature of technology. There are however existing technologies such as bioremediation and emerging technology such as phytoremediation that could be looked at as viable technologies for developing countries. Obviously one has to do some model pilot, scale experiments in the countries concerned, to prove their performance and pinpoint any modifications that need to be incorporated. One has to look into the merits of BAT/BEP experiences in similar developing economies.

Lack of capacity to conduct risk management decision for contaminated land/site remediation

37. Risk Based Decision Making (RBDM) is a very complicated process and before embarking on a costly land remediation exercise, one has to take into account all factors. Some are linked to capacity building in bringing stakeholders involvement, consideration of all the technology, legal, social factors are of is of utmost importance for any public and/or private involvement in land/site remediation.

A.5. Linkages to other programmes in the region

38. There are a number of ongoing and pipeline projects in Ghana and linked to POPs among other environment related projects. During the preparation of the project all relevant project personnel were met and close collaboration will be kept wherever necessary. Figure 1 gives the linkages of the proposed regional project to other projects in the region. This will provide the synergy and avoid duplication since no other project directly deal with POPs contaminated land/sites.

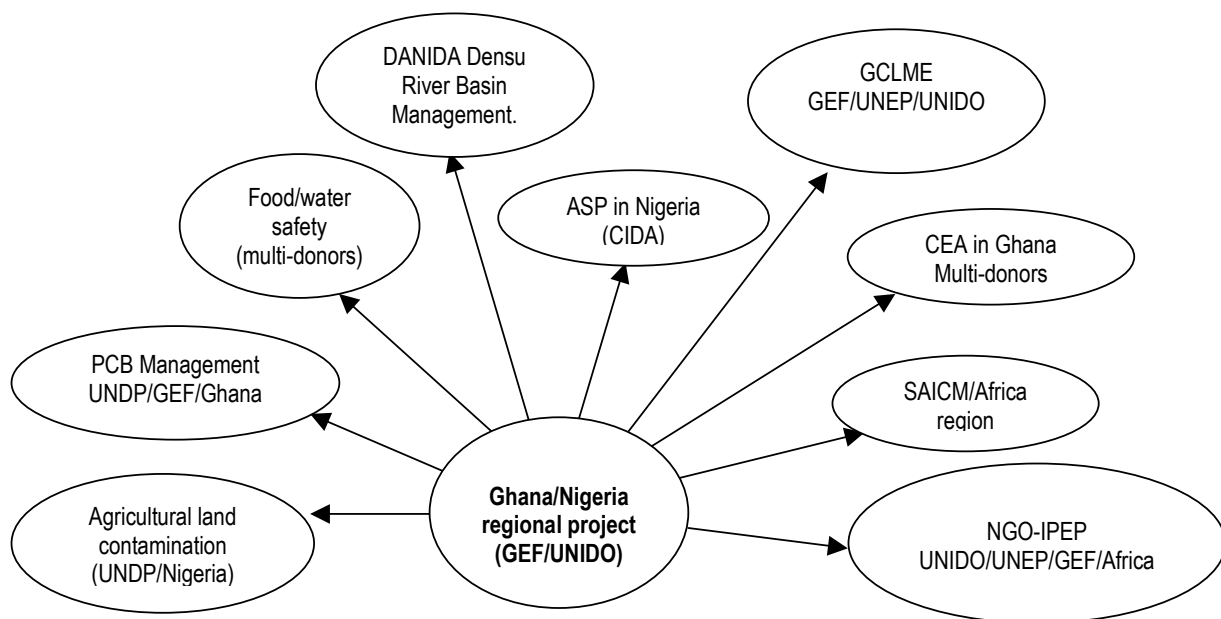


Fig. 1: Possible Linkages and Synergies to other Ongoing Programmes in the Region

Guinea Current Large Marine Ecosystem (GCLME)

39. The GCLME is a regional GEF funded project, which focuses on environmental degradation, pollution control and eco-diversity conservation in the Guinea Current. The project focuses on five integrated modules: resource productivity, natural resources management of fish and fisheries, pollution and ecosystem health, socio-economics and governance. This project will complement GCLME project through the prevention of pollution of the Guinea Marine Current from activities particularly the contaminated sites. It will facilitate the achievement of the outputs of the pollution and ecosystem health reduction as well as enhancing the biodiversity conservation of the Guinea Current region, sustainable development of LME resources, greater food security and the promotion of increased socio-economic benefits.

Africa Stockpiles Programme (ASP) in Nigeria

40. The Canadian International Development Agency (CIDA) along with the World Bank has already approved a subprogramme under the ASP for disposal of obsolete stockpiles of pesticides including POPs. The ASP project is aimed at clearing and disposing stocks of obsolete pesticides including POPs with a view to prevent further stockpiles and contamination of the environment. A preliminary survey carried out under the project identified some warehouses stocked with some obsolete pesticides prohibited under the Stockholm Convention. The warehouses are located in Lagos, Ibadan, Kano and Kaduna. This proposed project would link with the ASP project in identifying the extent of soil/site contamination due to the indiscriminate use and bad storage of obsolete pesticides, especially those that are POPs.

Strategic Approaches for International Chemicals Management (SAICM)

41. SAICM has been finalised and includes a Global Action Plan that has put forward a number of concrete measures mainly intended to facilitate implementation of global conventions and agreements including the relevant chapters of Agenda 21 dealing with environmentally sound management of chemicals and chemical wastes. Ghana and Nigeria participated fully in the Global Action Plan and play an important role in the African Regional Consultation to the Action Plan. Under concrete measures, SAICM refers to 288 items and among other things item 253 specifies:

“establish infrastructure for analysing and remediating contaminated sites. Provide training in rehabilitation approaches. Develop capacity to rehabilitate contaminated sites. Develop remediation techniques. Increase international cooperation in provision of technical and financial assistance to remedy environmental and human health effects of chemicals ...”

Danish International Development Agency (DANIDA) Densu Basin Pollution Control Project in Ghana

42. DANIDA is currently supporting Ghana through the Water Resources Commission to address the Densu River Basin pollution problem. The main sources of water pollution have been identified to include pesticides mismanagement, contaminated farmlands along the river basin, domestic and industrial wastes from the numerous settlements along the Densu river and its tributaries, unconventional fishing practices in the Densu River and Weija Lake downstream, which form the main source for water supply for the whole of Western part of Accra.
43. The Pokuase Agricultural Station, located on the banks of the Nsakyi River (a major tributary of the Densu River) was identified as a major hotspot where obsolete and containers of POP pesticides have been disposed off through burial. However, decontamination of such sites has not been included in the DANIDA support programme. Extension of support to cover this current proposal for decontamination, public participation, awareness creation and education in the basin by DANIDA will facilitate achievement of these noble objectives.

Country Environment Analysis (CEA) in Ghana

44. The CEA in Ghana is a multi-donor support programme to carry out a country environmental analysis, focusing on forestry, wildlife, urban/rural development and land degradation. The project support provides assistance for and promotion of water and sanitation facilities, sustainable agricultural practices and reclamation of degraded mining lands. This proposed project would strive to complement the CEA through contributing to the safety and quality of underground water from POP contamination and enhancement of agricultural productivity, urban/rural development and analyze the potential use of remediated lands for agricultural, industrial and commercial purposes.

PCB Management (GEF/UNDP/GHANA)

45. The main objective of the PCB management project is to identify all possible sources of PCBs such as capacitors, transformers, contaminated sites, stockpiles and any other sources. This would enable the development of disposal plans. However, this project like the ASP does not include decontamination of PCB-contaminated sites as an additional responsibility. This regional project, to identify and treat selected chemically contaminated sites, could be a major collaborator to clean the environment of POPs.

NGO/Industries cooperation

46. On 1st May 2004, the International POPs Elimination Network (IPEN), in partnership with UNIDO and UNEP began a global NGO project called the International POPs Elimination Project (IPEP). The GEF provided core funding for the project. The three principal objectives of IPEN are:
 - Encourage and enable NGOs in 40 developing countries in their efforts in preparation for the implementation of the Stockholm Convention.
 - Enhance the skills and knowledge of NGOs to help build capacity as effective stakeholders in the Convention implementation process.
 - Help establish regional and national NGO coordination and capacity in all regions of the world in support of long-term efforts to achieve chemical safety.
47. Two NGOs covering the Anglophone Africa in Tanzania and Francophone Africa in Senegal are signatories to this agreement and will be linked on a long-term objective.
48. Oil and mining industries play a key economic role in Nigeria and Ghana. As already mentioned, NGOs and the industries themselves are aware of soil/water contamination caused

by these activities using POPs chemicals such as PCBs and HCBs. Based on discussions during the preparatory phase, the government, private and public industries and the NGOs have shown great interest in the project and will be joining in the capacity building on contaminated site identification, technology selection and prioritisation leading to future land remediation.

A.6 Linkages to development objectives of the national/regional authorities, and UN common development goals

49. Most countries with developing economies and economies in transition lack adequate and appropriate technical capacity to properly destroy obsolete stocks of POPs and/or remediate POPs-contaminated environmental reservoirs. By establishing criteria and guidelines for the identification and selection of appropriate methodology for identification of polluted sites and selection of environment friendly and economically feasible low cost remediation as well as establishing guidelines for the deployment of these technologies, this project would provide a model for the decontamination of sites associated with POPs in the region. The World Bank document (2005) entitled "Opportunities for integrating the Sound Management of Chemicals to the Millennium Development Goals (MDG)" specially links:

- MDG 1: Eradicate poverty and extreme hunger
- MDG 4: Reduce child mortality
- MDG 5: Improve maternal health
- MDG 6: Combat /HIV/aids, malaria and other diseases
- MDG 7: Ensure environmental sustainability
- MDG 8: Build a global partnership for development

50. This document clearly cites the vulnerability of poor people in particular to chemical risks and links agriculture, fishery, health, energy, mining, water and sanitation sectors' exposure to POPs implicated in the Stockholm Convention.
51. Following the identification of hotspots using the proposed methodology for site identification and after the selection of the economically viable and environmentally friendly remediation technologies, pilot scale remediation experiments for low cost technologies will be undertaken both in Ghana and Nigeria. Special emphasis will be given to sites that can be considered as hotspots of contamination. Suitable training and supervisory assistance will also be provided to the participating countries by linkage and partnership arrangement with relevant institutions in the developed world. Most importantly, the proposed project will bring out two sets of toolkits: one for the systematic identification of land/sites contaminated by POPs and another for the methodologies to be adopted in the region for decontamination using low cost technologies. Such toolkits will benefit the whole of the African region.

A.7 Civil Society Involvement

52. Civil Society involvement was a hallmark of the preparation activities. Repeated consultations with the NGO community took place in Ghana and Nigeria. In addition, preparatory activities included two regional seminars. The first one held in Abuja, Nigeria on 26th January 2006 considered the technology options for site remediation and the second one held in Accra, Ghana on 2nd February 2006 considered the policy and legal framework for the project. In both seminars more than 20% of the participants were NGOs, educational institutions, press and TV media.
53. Even more extensive Civil Society involvement is planned during the implementation of this project. Arrangements have therefore been included for substantial and ongoing country-based Civil Society participation both in project implementation and project monitoring in both Ghana and Nigeria. The project also provides for explicit and continuing regional Civil Society involvement in both the work of the Project and the overall Programme linkages with the NGO network in Africa, as shown in Fig. 1. A sample letter from a NGO organization, Nigerian Environmental Society (NES) is attached in Annex 6 Appendix 2.

A.8 Regional approaches to POPs stockpile destruction

54. Since the ASP has taken a Regional Approach to the elimination of obsolete stockpiles of pesticides on the African continent, this project is considered as an obvious extension into

identification and remediation, if required, of contaminated lands. For this reason, there will be close linkages between the project and the ASP.

A.9 Inclusion of other countries in the region

55. As referred earlier (Fig.1), Nigeria and Senegal's active role in SAICM and Mali's initiative in land contamination will all strengthen the inclusion and participation of more countries in the regional project.

SECTION B. REASONS FOR UNIDO ASSISTANCE

56. Under the Multilateral Environmental Agreements, UNIDO has been one of the leading agencies in implementing projects under the Montreal Protocol and is an Executing Agency with Expanded Opportunities in Stockholm Convention on POPs. Under the GEF funded Enabling Activities, UNIDO is assisting more than 40 countries in the preparation of the NIP as one of the requirements of the Parties to comply with the obligations under the Stockholm Convention.
57. Under the enabling activities projects, UNIDO has been providing assistance on capacity building in the participating countries in understanding the implications of Stockholm Convention and providing expertise in generating the following POPs related inventories such as:
 - Inventory of use
 - Inventory of import/export
 - Inventory of stockpiles
 - Inventory of sources
 - Inventory of polluted sites
58. In addition, UNIDO provided necessary assistance in preparing and/or updating National Chemical Profiles. With National Executing Agencies, UNIDO made sure that all relevant stakeholders were involved during the preparation of the NIP. In all these activities the national expertise was used extensively.
59. The proposed project encompasses, for the first time on a regional basis, to establish policy/legal framework for dealing with POPs contaminated lands/sites, the systematic identification of POPs contaminated lands/sites, carry out risk assessment, prioritization and risk management and develop appropriate technologies for land remediation. In the process of implementation of the project, it is proposed to identify local institutions as focal points for various outputs and strengthen their facilities and train staff to provide long- term sustainability.
60. Land remediation is a complex and expensive process and needs a well established policies/legal framework, robust methodology for identification of contaminated lands, proper analysis of soil samples, a good understanding of risk analysis, identification and application of appropriate technologies and good participation of all stakeholders.
61. UNIDO for many years has been actively involved with UNECE in expert group discussions on decontamination of soil and water contaminated by toxic chemicals. In collaboration with UNECE, UNIDO has put a valuable compendium of "Soil clean-up technologies and soil remediation companies".
62. Being a complex subject, UNIDO will use as much as possible local experts and has identified a technical partner in GeoEnvironmental Research Centre (GRC) located in Cardiff, UK. The centre is one of the leading institutions in Europe dealing with reclamation of brown fields. The expertise of the Centre will be fully utilized to build the regional capacity in the project.

SECTION C. THE PROJECT

C.1 Objective of the Project

63. The overall objective of the programme is to build capacity and strengthen institutional arrangement and develop appropriate strategies for identifying sites contaminated by chemicals listed in Annexes A, B and/or C of the Stockholm Convention. The project will also assess the viability of environmentally sound and low-cost remediation technologies. Results of these pilot project experiences will be extended to other countries in the region.

Immediate Objective of the Project

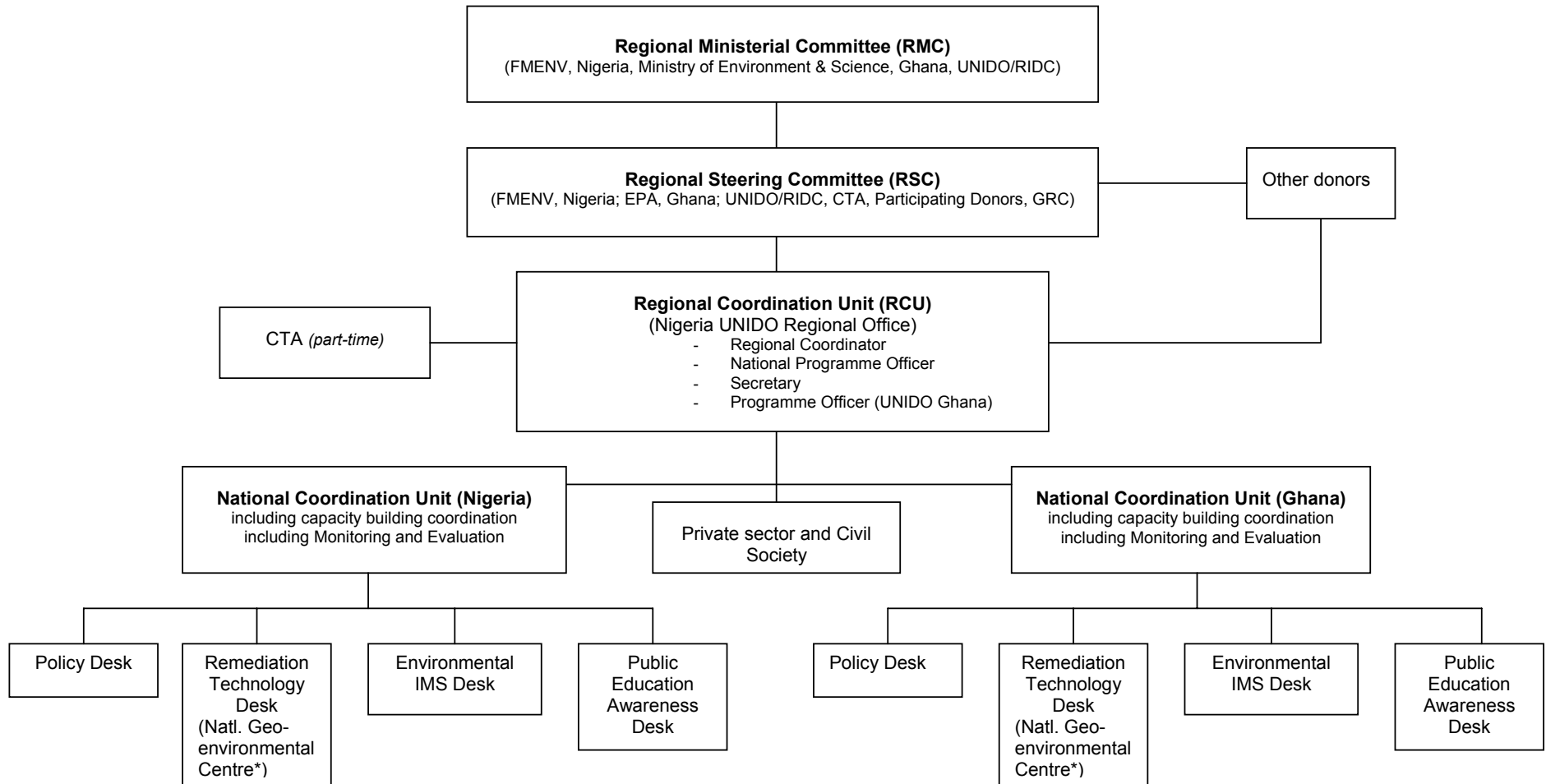
64. The immediate objective of the programme includes:
- Development of policy and legal frameworks for management of contaminated lands/sites; and
 - Strengthening of institutional capacity for mitigation of land contamination and sustainable land management, potential hotspots identified and prioritised for pilot testing of appropriate low-cost environmentally sound technologies, if remediation is required.

C.2 The UNIDO approach

Project implementation:

65. The project implementation will be under the oversight of a Regional Ministerial Committee (RMC) to ensure that a high-level importance is given to policy and legal objectives of the project. The organizational arrangement (Fig. 2) is proposed and will be further modified after further consultations. The policy units in Ghana and Nigeria will be in contact with the Regional Coordination Unit (RCU) and RMC to be briefed on the policy issues, ways and means to be included in the countries' legal framework and existing relevant laws and decrees and finally agreeing to enforcement at national and regional levels. The proposed RCU office will be located at the UNIDO Regional Office in Abuja for ease of communication from the Regional office to all counterpart organizations in Nigeria and Ghana. It is also cost-effective in the sense that UNIDO will cover the salary of the Regional Coordinator, office space and at least one secretary under its field operational budget. The Government departments will deal with national coordination units assigned to them on a national basis.
66. While the RCU will take care of the day-to-day functioning of the project, the Regional Steering Committee (RSC) will supervise the overall implementation of the project and recommend any modifications or change of work plan including budget provisions. The RSC will meet twice a year, once in Nigeria and once in Ghana. During the project implementation, it will meet at UNIDO or in an institution in Europe that provides technical training.
67. The establishment of Geoenvironmental Centres (GCs), linked to private sector, is a unique undertaking in the region that, with fully developed programmes on land/site development of contaminated land, will have a cost-effective benefit to the region. Care has been taken not to establish any stand-alone institution that would eventually be difficult for governments to cover the operational costs from the recurrent budgets. The Centres will play a key role in technical capacity building in Ghana and Nigeria on identification of contaminated sites due to industrial, non-industrial and agricultural activities, develop environmental indicators, soil and other matrices analysis for prioritization of contaminated land based on risk assessment/management and develop capacity to select appropriate low cost technology for remediation of POPs contaminated soil. These Centres will continue to be responsible to develop and update the toolkit for stepwise strategy to identify and prioritize POPs contaminated sites and methodology for the selection of appropriate low-cost technology for remediation, if required.
68. It is also conceived that industries especially oil, mining (particularly users and produces of PCBs and HCBs) and agricultural industries (users and produces of pesticides) will join as partners in running the Geoenvironmental Centres with the Government in line with public-private partnership to share the cost beyond the proposed project.

Figure 2: Proposed Organization Chart for the implementation of the Regional Project



Note: The Centre will not be a stand-alone institution. It will be established within the existing institutions in order to be cost-effective and sustainable in the long-term.

Intertwining of Institutions

69. In order to promote sustainability and capacity building, the Geoenvironmental Centre, IMS unit and the Risk Assessment units will intertwine with similar institutions in industrialized world. Such an intertwining will promote interaction within the project but also in other areas related to sound environmental management beyond the project life. This institution is identified as the Geoenvironmental Research Centre located in Cardiff, which will act as a Technical Partner in the project.

Cost-Effectiveness

70. The project aims at cost-effectiveness means of environmentally sound management of POPs contaminated sites in Ghana and Nigeria. Past experiences in the US Super Fund exercise and the experience of Holland in the 1960s due to lindane contamination have shown that land remediation by all means is an expensive undertaking particularly to developing countries. According to UNIDO/UNECE "Compendium on soil-cleanup technologies" published in 2000, a remediation cost range of EUR 100-300 per metric tonne is entertained, depending on the level of contamination, selection of technology and the level of clean up required by law for various development uses. This project will aim to verify if these costs could be decreased and render remediation technologies usable for environmentally acceptable standards and if low-cost technology deployment for Ghana and Nigeria could be affordable to private-public sector participation. The outputs of the toolkit project would be applicable (including the policy/legal framework, the toolkit for identification of POPs contaminated sites) for the whole region of Africa in a cost-effective way. In addition, in each component, effective measures have been taken to reduce the cost such as the RCU office be located in the UNIDO Regional Office and the NCUs be hosted in the existing government offices.

Stakeholder participation/preparation

71. Throughout the project preparation, stakeholders' participation and discussions were given cardinal importance and this will continue to be a major feature of the project implementation. The project will stress participation within the two countries through workshops, IMS and dissemination of information giving transparency. NGOs along with relevant ministries will be part of the public awareness and environmental education programmes. The table below shows the list of stakeholders that have fully agreed to participate in the project implementation.

Organization	Involvement
NIGERIA	
1. Federal Ministry of Environment	Overall in-charge of implementing the project in Nigeria/Geoenvironmental Centre/IMS
2. Federal Ministry of Agriculture and Natural Resources	POPs pesticides contamination/data collection and related issues
3. Federal Ministry of Health	Health indicators/interpretation
4. National Agency for Food and Agricultural Administration and Control	Pesticides export/import registration
5. Power Holding Company of Nigeria	PCB contamination/partner for Geoenvironmental Centre and private-public partnership
6. Nigerian National Petroleum Corporation	POPs and other PTS contamination, partner with Geoenvironmental Centre and private-public partnership
7. Print and Electronic Media	Public awareness/information dissemination (IMS)
8. Manufacturing Association of Nigeria	General aspects of chemical contamination
9. Mobile Oil Company Plc.	Part of private-public partnership
10. Nigerian Environment Society	Public awareness/IMS
11. Clean-up Nigeria Environmental Resources Managers Ltd.	Policy aspects

Organization	Involvement
GHANA	
1. Ministry of Environment and Science – Environmental Protection Agency Ghana	Overall implementation of the project in Ghana/IMS
2. National Plant Protection, Ministry of Agriculture	POPs pesticides contamination
3. Electrical Company of Ghana	PCB contamination and private-public partnership
4. Council of Scientific and Industrial Research	Analysis of contaminants
5. EcoLab, University of Ghana, Accra	Geoenvironmental Centre

Rationale for GEF Intervention

72. In general, the project has been designed in full conformity with GEF policies and programme guidelines. It is built upon a partnership between and among the Implementing and Executing Agencies, the Government, the Private Sector and the bilateral donors. It enjoys the strong support of Civil Society at local, national and regional levels.
73. The project is consistent with the GEF operational programme on POPs, OP # 14 (GEF/C.22/Inf.4), and is aligned with POPs strategic objective 4 “*Partnering in the demonstration of feasible, innovative technologies and practices for POPs reduction*”. This programme emphasizes the need to develop and strengthen country capacity to fulfil its obligations under the Stockholm Convention through the provisions of on-the-ground interventions to implement specific phase-out and remediation measures at national and/or regional level and includes provision for capacity building. The project is consistent with this stated intent of OP#14, in particular its para 16, which states that on-the-ground interventions to assist eligible countries include “environmentally sound destruction of wastes that contain POPs and remediation of related affected sites, where warranted, taking into account the assessment of the risks posed to ecosystems and human health and cost-effectiveness”. This paragraph further states that activities eligible for GEF funding may include identification, containment and stabilization of wastes that contain POPs and environmentally sound management of stockpiles. Lastly, the proposal responds to OP#14 emphasis on strengthening capacity and infrastructure and institutions at different levels, monitoring, strengthening of enforcement capacity and facilitation of technology transfer.

C.3 RBM code and thematic area code

Stockholm Convention - BC.16

C.4. Expected outcomes

74. At the end of the project, the two participating countries, Ghana and Nigeria, would have developed the capacity to systematically identify POPs contaminated lands and sites and would have evolved and endorsed regional policy and national legal framework for proper management of POPs contaminated sites. The countries would have achieved in preparing a toolkit for the selection of appropriate technologies for the countries to adopt in a stepwise manner using risk assessment/management approach.
75. The outcome would be a full participation of all stakeholders in the two countries and greater understanding of the public in awareness and environmental education related to POPs contaminated lands/sites.
76. The two local Geoenvironmental Centres established under the project in Ghana and Nigeria would have trained staff and facilities to identify/analyze contaminated land/sites, carry out full risk assessment according to national/international standards, carry out experimental scale land remediation techniques and select appropriate technologies for implementation. The countries will have the capability to assess socio-economic impact of POPs contaminated lands/sites.

77. The countries would have established Regional/National Information Management System for POPs and other toxic contaminants, which would be updated periodically and made accessible to all interested parties.
78. A regional monitoring and evaluation system would have been in place and all of these will make the project outcome sustainable and replicable for the whole African region.

C.5. Outputs and activities

Output/ Activity	Description	Responsibility
Output 1	A suitable organization arrangement set up for timely and well monitored implementation of the project	
Activity 1.1	Establish a Regional Ministerial Committee (RMC) from Ghana and Nigeria for overall monitoring of the project implementation and meeting twice annually.	RIDO (Abuja)/Ghana (EPA)/Nigeria, (FMENV)
Activity 1.2	Establish a Regional Steering Committee (RSC) to meet three times annually to monitor the progress of the project, make recommendations for any changes/modifications to activities outputs and budget allocations. Prepare Terms of Reference for the RSC.	UNIDO/RIDO(Abuja)/Ghana (EPA)/Nigeria (FMENV)/GRC(Cardiff)
Activity 1.3	Establish a Regional Coordination Unit (RCU) for the day-to-day implementation of the project. Prepare Terms of Reference for the Unit.	UNIDO/RIDO/Ghana (EPA)/Nigeria (FMENV)
Activity 1.4	Recruit Chief Technical Advisor (CTA).	UNIDO
Activity 1.5	Appoint Regional Co-ordinator and administrative staff for the RCU.	UNIDO/RIDO(Abuja)
Activity 1.6	Identify and recruit National Project Director and administrative staff in each country.	RIDO (Abuja)/Ghana(EPA)/Nigeria (FMENV)
Activity 1.7	Establish all the National Coordination Units and prepare Terms of Reference.	RIDO (Abuja)/Ghana(EPA)/Nigeria (FMENV)
Activity 1.8	Equip the RCU with office equipment and other facilities as agreed during the project implementation.	UNIDO/CTA/RIDO
Activity 1.9	Skill share workshops in Ghana and Nigeria annually for project teams (RMC and RCU) and other potential country participation.	UNIDO/CTA/RSC/RIDO
Output 2	Establishment of Regional Policy and National Legal frameworks for the management of contaminated sites	
Activity 2.1	Develop regional policy for the management (enforcement, monitoring and evaluation) of contaminated sites based on a risk assessment model.	UNIDO/CTA/RCU/International experts/National Experts
Activity 2.2	Recruit international and national experts to assist in the drafting of the environmental legislation.	UNIDO/CTA/RCU/Ghana/ Nigeria
Activity 2.3	Develop, reform and extend existing policy and legislation to cover the management of contaminated sites.	UNIDO/CTA/RCU/GRC/ National and international experts
Activity 2.4	Keep the RMC fully informed of the policies developed in and to have overall responsibility for monitoring the implementation of the policy when enacted through national legislation.	RSC/RCU
Activity 2.5	Establish regional/national training programme for staff in the meanings, requirements and enforcement of the legal framework.	UNIDO/CTA/RCU/National/ International experts /GRC
Output 3	National and Regional Capacity Building and Institutional Strengthening	
Activity 3.1	Establishment of a Regional/ National Classification System for contaminated sites.	RCU/CTA/GRC/National experts

Output/ Activity	Description	Responsibility
Activity 3.2	Strengthening of institutional capacity for mitigation of land contamination and for sustainable contaminated land management.	GRC/RCU
Activity 3.3	Human resource capacity development on sustainable methodologies for contaminated land site identification and remediation.	GRC/RCU
Activity 3.4	Development of capacity for programmes of stakeholder engagement, public awareness and education programmes.	RCU
Output 4	Toolkit for the selection of environmentally sound and economically feasible remediation technologies for Ghana and Nigeria	
Activity 4.1	Establish two national Geoenvironmental Centres within an existing institution (public-private sector partnership) in Ghana and Nigeria for remediation of (POPs) contaminated sites.	RCU/GRC/CTA
Activity 4.2	Develop methodology for the systematic and stepwise identification of potentially POPs contaminated sites in Ghana and Nigeria with a regional prospect (including all risk studies).	RCU/GRC/CTA/UNIDO
Activity 4.3	Develop a framework, including an analytical toolkit for a decision support system for the selection of environmentally sound economically feasible technologies for the remediation of POPs contaminated sites.	UNIDO/GRC
Activity 4.4	Deploy selected methodology and framework for the identification and selection of appropriate low-cost remediation technology for POPs contaminated sites based on samples taken from the contaminated sites.	RCU/GRC
Activity 4.5	Undertake experimental project(s) in Ghana and Nigeria to verify effectiveness of low-cost technology and validate the site selection methodology, the framework for remediation technology selection and the selected technology option. No site remediation will be undertaken.	RCU/GRC
Output 5	Establishment of environmental IMS and framework for stakeholders engagement and public educational and awareness Programme	
Activity 5.1	Development of project strategy for communication and stakeholder engagement including a strategic communication plan.	RCU
Activity 5.2	Establish, organise and maintain effective, national databases for potentially POPs and other PTS contaminated sites to assist in site prioritisation and best practise development.	RCU/GRC
Activity 5.3	Establishment of an effective environmental Information Management System (IMS) to share information, relevant assessment tools, classification system, remediation methodologies and best practices techniques through the development and deployment of a 10-year IMS Strategic Plan.	RCU/GRC
Activity 5.4	Undertake activities necessary to strengthen the understanding of POPs issues through programmes of education and awareness for all relevant stakeholders. Promote regional awareness outside the participating countries in the ECOWAS region.	RCU/GRC/CTA
Activity 5.5	Development and deployment of complementary websites, newsletters and systems for internal and external dissemination of POPs related information.	RCU/NCU
Output 6	Regional Monitoring and Evaluation Plan	
Activity 6.1	Develop/assess baseline for M&E indicators for the project outputs.	RCU/GRC/UNIDO
Activity 6.2	Establish a socio-economic assessment and indicators for POPs exposure likely to emanate from contaminated sites.	RCU/GRC/UNIDO
Activity 6.3	Mid-term and terminal Project Implementation Review (PIR) exercise (excluding UNIDO staff time).	UNIDO/RCU
Activity 6.4	M&E of the various non-civil society stakeholders.	RCU/NCU/UNIDO
Activity 6.5	Establish continuous civil society involvement/participation in M&E.	RCU/NCU

C.6 Risks, Sustainability and Commitment

79. The five principal risks that need to be taken into account for this project include:

- The possibility that the project will not be sustainable for financial and other reasons beyond the life of the GEF intervention.

The risk is low due to the fact that the capacity building achieved in the project would be broadly applicable to many similar toxic contaminants.

- The possibility that there exists inadequate and ineffective political will, government support and actual commitment for the project.

This is low since the project puts emphasis on policy and legal framework, country driven and country ownership approach and will be implemented under the supervision of a committee at Ministerial level indicating full commitment.

- The possibility of inadequate timeframe in which to complete and achieve the outlined tasks.

The risk is none due to the fact that the implementation will be based on a workplan that will be monitored periodically and remedial action and adjustments made to meet the timely inputs to achieve the outputs.

- The possibility of inadequate and ineffective stakeholder participation during the project as well as the possibility of conflicting long-term stakeholder priorities.

The risk is low due to the fact that during the preparation of the country NIPs and the project brief, all relevant stakeholders played an important role and even wanted expanded coverage of toxic contaminants and not restricted to POPs only.

Sustainability, replicability, commitment and future sites contamination prevention

80. The project gives great importance to policy development and legal framework for giving credibility, sustainability and above all commitment at ministerial level due to its role in Outputs 1 & 2 of the project.

81. The capacity building, especially in public awareness, environmental education, NGOs and stakeholders' involvement and establishment of a well-functioning IMS will provide the long-term knowledge upgrade of public, civil servants and civil society, which will have its own momentum for providing information on POPs land pollution and consequent impact on other environmental matrices including water bodies.

82. Sufficient cooperation/linkage with projects related to Stockholm Convention in the region is envisaged in the implementation of the project.

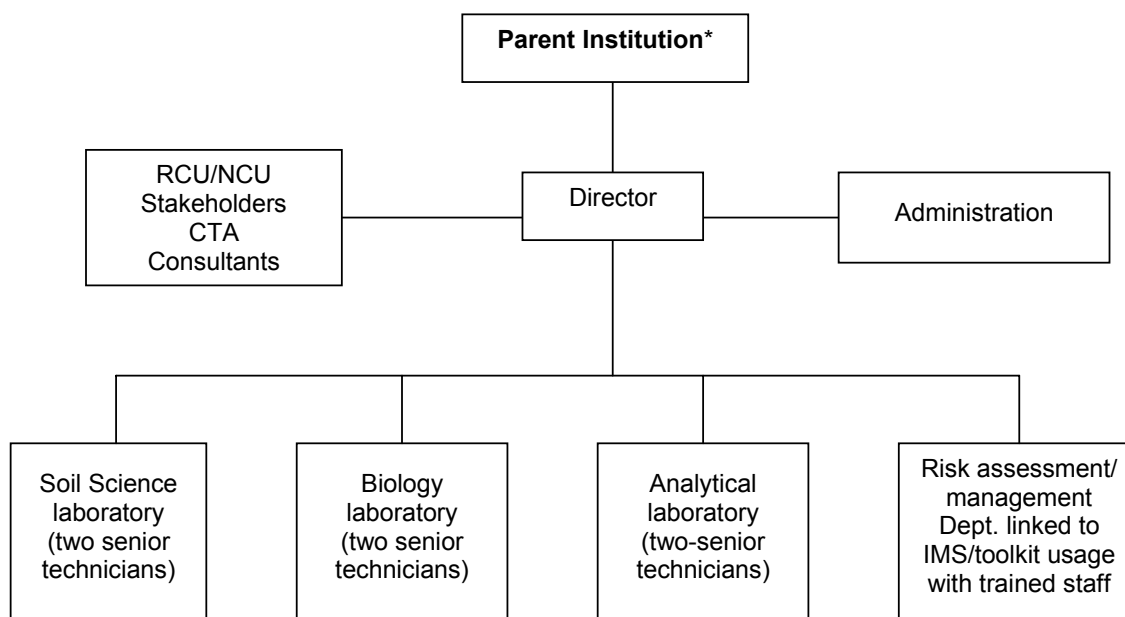
83. During the project brief preparation, there has been a great cooperation and understanding and full involvement and interaction among the national experts, several Ministries and NGOs in order to keep the partnership, country ownership and country driven approach.

84. Many of the outputs from the six components offer scope of replicability to other countries in the region. It is envisaged to hold two regional seminars in cooperation with ECOWAS as part of the activities to promote policy/legal framework, enactment and enforcement and also on the use of toolkit to stepwise identify POPs contaminated sites/lands and carry out risk assessment/management strategy to prioritise contaminated lands and in selecting appropriate technology, if remediation is needed.

85. The expectation is that by enacting policy/legal framework on a national basis and consequently on a regional basis will have an impact on the prevention of future land contamination. Projects like the ASP that look after the prevention of future accumulation of obsolete stocks and as part of NIP action taken in industrial and non-industrial categories implicated in the Stockholm Convention, the toolkit and the set of policies should as well take care for the elimination or reduction of POPs. This will have a direct effect on land contamination prevention. This project strategy of monitoring/containment of POPs contaminated land will contribute to the prevention of further contamination.

86. There will be no creation of any new stand-alone centre but only existing institutions and laboratories will be upgraded thereby increasing the probability of long-term sustainability and replicability.
87. As part of the Outputs 3 and 4, a toolkit will be prepared by a group of national and international experts. Such a toolkit will assist the participating countries to identify POPs contaminated sites, carry out risk assessment/management to adopt environmentally sustainable management of POPs contaminated sites and prevent any future contamination on a systematic approach. The toolkit will also provide a reference guide on available low cost technologies for developing countries and countries with economies in transition. The toolkit will be further optimised in consultation with other agencies such as UNEP/UNECE/FAO for universal application on a national/regional/global basis. In the long run, this should help in national/regional and even global mapping of highly contaminated sites. It will also include the policy/legal framework aspects on a national or regional basis. These aspects will assure replicability of this output and add to awareness to policy issues by the stakeholders.
88. The proposed centres in Ghana and Nigeria will be part of existing institutions and will be miniature models of the Geoenvironmental Research Centre located in Cardiff, UK, who will act as technical partner for this project. It is also envisaged that once these local centres are established, there will be twinning arrangements among these Centres to assure a long-term sustainability. It is also envisaged that some NGO organizations, industries and governmental departments will use the services of these centres. The proposed set-up for GRC is given below:

Proposed set-up for Geoenvironmental Centre (GC) in Ghana and Nigeria



* Ghana: the EcoLaboratory at the University of Ghana, Accra will accommodate the GC.

* Nigeria: the GC will be established in one of the environmental laboratories of the Ministry of Environment, Lagos.

C.7 Timelines of the activities – Tentative Workplan

Component	Activities	Year 1				Year 2				Year 3				Year 4			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
1. Project Coordination																	
	TORs for RMC/RSC/RCU/NCUs	■															
	Establish all UNITS with staff/equipment	■	■														
	Skill share workshops, for RMC/RCU/NCUs and regular activities review meetings, project evaluation, etc.	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■	■
2. Regional policy and legal framework																	
	Develop regional policy for management of contaminated sites		■	■	■	■	■										
	Recruitment of international/national experts to assist in drafting of environment legislation	■															
	Keep RMC fully informed of policies developed to facilitate enactment	■	■	■	■	■	■										
	Keep all stakeholders involved during policy development	■	■	■	■	■	■										
	Organize and conduct regional/national training programmes of staff on requirements /enforcement of legal framework				■	■	■	■									
	Policies/legal framework enacted								■	■							
	Develop indicators for monitoring policy enactment and enforcement								■	■	■	■	■	■	■	■	■
3. National and regional capacity building and institutional strengthening																	
	Develop national/regional classification system				■	■	■	■									
	Strengthening of institutional capacity for mitigation of land contamination and sustainable contaminated land management				■	■	■	■	■	■	■	■	■	■	■	■	■
	Human resource development on sustainable methodologies for contaminated land site identification /remediation			■	■	■	■	■	■	■	■	■	■	■	■	■	■
	Develop programmes for stakeholders involvement/public awareness and education			■	■	■	■	■	■	■	■	■	■	■	■	■	■
	Draw plans for required training for trainers to sustain the programme		■	■	■	■	■	■	■	■	■	■	■	■	■	■	■

Component	Activities	Year 1				Year 2				Year 3				Year 4			
		1	2	3	4	1	2	3	4	1	2	3	4	1	2	3	4
4. Toolkit for selection environmentally and economically feasible remediation technologies for the Region.																	
	Establish two Geoenvironmental Centres in participating countries with required trained staff/equipment		■	■	■	■	■	■	■								
	Develop methodology for systematic and stepwise identification of potentially POPs contaminated sites with regional context including all risk studies		■	■	■	■	■	■	■	■	■	■	■				
	Develop an analytical tool kit for decision /support system for environmentally sound and economically feasible technologies for contaminated sites				■	■	■	■	■	■	■	■	■				
	Deploy selected methodology and framework for the identification and selection of appropriate low-cost technology for POPs contaminated sites based on samples taken from the contaminated sites.				■	■	■	■	■	■	■	■	■				
	Carry out experiments to verify effectiveness							■	■	■	■	■	■	■	■	■	
5. IMS public awareness and environmental education																	
	Develop project strategy for communication for all parties engagement			■	■												
	Establish an effective data base on POPs and other PTS contaminated sites						■	■	■	■	■	■	■				
	Establish IMS as per requirement for a 10 year IMS strategy plan													■	■	■	■
	Develop/deploy complimentary websites, newsletters for regional dissemination of POPs related information						■	■	■	■	■	■	■	■	■	■	■
	Organize two regional seminar in collaboration with ECOWAS on project achievements														■		
6. Regional M&E Plan																	
	Develop/assess baseline for M&E indicators for the project outputs		■	■													
	Establish socio economic assessment and indicators for POPs exposure from POPs contaminated sites				■	■	■	■	■	■	■	■	■				
	Mid term and terminal project review in accordance with GEF/UNIDO guidelines							■								■	
	M&E of various civil society stakeholders					■	■	■	■	■	■	■	■	■	■	■	■
	Involve civil society /participation in M&E					■	■	■	■	■	■	■	■	■	■	■	■
7. Draw plans for long term sustainability /replicability of the project and make an evaluation plan																	
																	■

SECTION D. INPUTS**D.1 Counterpart Inputs**

Government of Ghana (in-kind)	US\$ 250,000
Government of Nigeria (in-kind)	US\$ 250,000
Government of Nigeria (in cash)	US\$ 900,000
Other donors:	
GRC, UK (in-kind)	US\$ 250,000
Bilateral/Multilateral donors (in-kind/cash)	US\$ 150,000
(such as CIDA (Canada); DANIDA (Denmark); mining industries in Ghana; GTZ (Germany); ECOWAS, etc.)	
D.2 UNIDO inputs (in-kind)	US\$ 200,000
(in cash)	US\$ 100,000
D.3 GEF (cash)	US\$ 2,000,000

SECTION E. BUDGET**E.1 PROJECT BUDGET (GEF only)**

Component	Budget line	Description	Year 1		Year 2		Year 3		Year 4		TOTAL	
			US\$	w/m	US\$	w/m	US\$	w/m	US\$	w/m	US\$	w/m
1. Project Coordination	11-01	Chief Technical Advisor	15,000	1.5	20,000	2.0	15,000	1.5	10,000	1.0	60,000	6.0
	15-00	Project travel (consultants/experts)	5,000		5,000		5,000		5,000		20,000	
	21-02	Subcontract (NCUs)	20,000		50,000		40,000		20,000		130,000	
	21-03	Subcontract (RCU)	5,000		5,000		5,000		5,000		20,000	
	45-00	Office equipment	5,000				5,000				10,000	
Subtotal			50,000	1.5	80,000	2.0	70,000	1.5	40,000	1.0	240,000	6.0
2. Regional policy/legal framework	11-01	Chief Technical Advisor			5,000	0.5	5,000	0.5			10,000	1.0
	11-50	Short-term consultants	20,000	2.0	20,000	2.0	10,000	1.0	10,000	1.0	60,000	6.0
	13-00	Admin. Support	3,000	1.5	3,000	1.5	5,000	2.5	4,000	2.0	15,000	7.5
	15-00	Project travel (consultants/experts)	2,500		3,000		2,500		2,000		10,000	
	17-50	National consultants	20,000	4.8	20,000	4.8	10,000	2.4	10,000	2.4	60,000	14.4
	21-01	Subcontract (GRC)	5,000		5,000		10,000				20,000	
	33-00	Training	15,000		20,000		10,000		5,000		50,000	

Component	Budget line	Description	Year 1		Year 2		Year 3		Year 4		TOTAL	
			US\$	w/m	US\$	w/m	US\$	w/m	US\$	w/m	US\$	w/m
	35-00	Workshops/meetings	10,000		10,000		5,000				25,000	
Subtotal			75,500	8.3	86,000	8.8	57,500	6.4	31,000	5.4	250,000	28.9
3. National and Regional capacity building and institutional strengthening	11-01	Chief Technical Advisor			5,000	0.5	5,000	0.5			10,000	1.0
	11-50	Short-term consultants	5,000	0.5	10,000	1.0	5,000	0.5	10,000	1.0	30,000	3.0
	13-00	Admin. Support	3,000	1.5	3,000	1.5	5,000	2.5	4,000	2.0	15,000	7.5
	15-00	Project travel (consultants/experts)	5,000		5,000		5,000		5,000		20,000	
	17-50	National consultants	5,000	1.2	15,000	3.6	10,000	2.4	10,000	2.4	40,000	9.6
	21-01	Subcontract (GRC)	32,000		48,000		64,000		16,000		160,000	
Subtotal			50,000	3.2	86,000	6.6	94,000	5.9	45,000	5.4	275,000	21.1
4. Toolkit for selection of environmentally and economically feasible remediation technologies for Ghana and Nigeria and establishment of national Geoenvironmental Centres	11-01	Chief Technical Advisor	5,000	0.5					5,000	0.5	10,000	1.0
	11-50	Short-term consultants	20,000	2.0	20,000	2.0	10,000	1.0	10,000	1.0	60,000	6.0
	13-00	Admin. Support	2,000	1.0	4,000	2.0	8,000	4.0	4,000	2.0	18,000	9.0

Component	Budget line	Description	Year 1		Year 2		Year 3		Year 4		TOTAL	
			US\$	w/m	US\$	w/m	US\$	w/m	US\$	w/m	US\$	w/m
	15-00	Project travel (consultants/experts)	5,500		7,500		7,500		6,500		27,000	
	21-01	Subcontract (GRC)	55,000		90,000		112,000		28,000		285,000	
	21-02	Subcontract (NCUs)	30,000		30,000		30,000		25,000		115,000	
	21-03	Subcontract (RCU)	10,000		15,000		10,000		10,000		45,000	
	33-00	Training	10,000		20,000		20,000		10,000		60,000	
	35-00	Workshops/meetings	10,000		5,000		5,000		5,000		25,000	
	45-00	Equipment	60,000		100,000		100,000		30,000		290,000	
Subtotal			207,500	3.5	291,500	4.0	302,500	5.0	133,500	3.5	935,000	16.0
5. IMS, public awareness and environmental education	11-01	Chief Technical Advisor					5,000	0.5	5,000	0.5	10,000	1.0
	11-50	Short-term consultants	10,000	1.0	5,000	0.5	5,000	0.5	5,000	0.5	25,000	2.5
	15-00	Project travel (consultants/experts)	3,000		2,500		2,500		2,000		10,000	
	21-01	Subcontract (GRC)	2,000		10,000		6,000		2,000		20,000	
	21-02	Subcontract (NCUs)	5,000		10,000		10,000		5,000		30,000	
	21-03	Subcontract (RCU)	3,000		10,000		5,000		2,000		20,000	

Component	Budget line	Description	Year 1		Year 2		Year 3		Year 4		TOTAL	
			US\$	w/m	US\$	w/m	US\$	w/m	US\$	w/m	US\$	w/m
	33-00	Training	10,000		10,000		15,000		5,000		40,000	
	35-00	Workshops/meetings	10,000		10,000		20,000		10,000		50,000	
Subtotal			43,000	1.0	57,500	0.5	68,500	1.0	36,000	1.0	205,000	3.5
6. Regional M&E plan	11-50	Short-term consultants	5,000	0.5	10,000	1.0	5,000	0.5	5,000	0.5	25,000	2.5
	15-00	Project travel (consultants/experts)	4,500		3,500		3,500		3,500		15,000	
	21-01	Subcontract (GRC)	3,000		5,000		5,000		2,000		15,000	
	21-02	Subcontract (NCUs)	4,000		15,000		4,000		2,000		25,000	
	21-03	Subcontract (RCU)	4,000		5,000		4,000		2,000		15,000	
Subtotal			20,500	0.5	38,500	1.0	21,500	0.5	14,500	0.5	95,000	2.5
GRAND TOTAL			446,500	18.0	639,500	22.9	614,000	20.3	300,000	16.8	2,000,000	78.0

E.2 CO-FINANCING AND BUDGET

Name of Co-financier (source)	Classification	Type	Amount (US\$)	Status
Ministry of Environment and Science, Ghana	Government	In-kind	250,000	Confirmed
Federal Ministry of Environment, Nigeria	Government	In-kind In cash	250,000 900,000	Confirmed Confirmed
UNIDO	GEF Implementing/ Executing Agency	In-kind In cash	200,000 100,000	Confirmed Confirmed
GeoEnvironmental Research Centre, UK	Private	In-kind	250,000	Confirmed
Multidonors such as CIDA, Canada; DANIDA, Denmark; mining industries in Ghana, GTZ, Germany, ECOWAS, etc.	Bilateral/Multilateral agencies	in kind / in cash	150,000	to be confirmed during project implementation

Detailed Co-financing budget

	Output	Amount (US\$)
Government of Nigeria & Ghana (in-kind)	Project Coordination	100,000
	Policy/legal framework	100,000
	Regional capacity building	50,000
	Geoenvironmental Centre/Technology development	150,000
	IMS, public awareness and education	50,000
	Regional monitoring and evaluation	50,000
	Sub-total	
Government of Nigeria (cash)	Project Coordination	47,500
	Regional policy	75,000
	Capacity building	75,000
	Toolkit selection of remediation technologies	312,500
	IMS	95,000
	Monitoring and evaluation	45,000
	National in-country activities such as:	
	- upgrading of office building for GRC/purchase of laboratory equipment	130,000
	- training of staff and relevant stakeholders	30,000
	- procurement of project vehicles for GRC and NCU	40,000
- pilot demonstration of environmentally sound remediation technologies	50,000	
Sub-total		900,000
GRC, UK (in-kind)	Support to international technical inputs to the project	250,000
UNIDO (in-kind / cash)	Support to Regional Coordination Unit	170,000
	Information Management System	110,000
	Miscellaneous	20,000
Sub-total		300,000
Other donors		150,000
GRAND TOTAL		2,100,000

SECTION F. MONITORING AND EVALUATION AND REPORTING

89. The project objectives, outputs, activities, information on experimental laboratory scale and technology selection will be reviewed and evaluated according to GEF/UNIDO project evaluation policies and procedures. Experimental scale tests and investigations results on at least 4 sites for land remediation of POPs contaminated sites in order to verify and validate the site selection methodology, the framework for remediation and the selected technology options based on BAT/BEP. Two committees, the Regional Ministerial Committee (RMC) and the Regional Steering Committee (RSC) will be meeting regularly to monitor and provide necessary coordination. The Regional Coordinator (RC) will prepare the reports of these meetings (RMC and RSC). The RC will prepare progress reports and submit to UNIDO Hqs. every three months. UNIDO Project Manager will submit a yearly Project Implementation Report (PIR) to the GEF Secretariat. The table below shows the activity and responsibility of stakeholders in reporting on project progress activities. This takes into account the technical aspects of implementation.

Type of M&E activity	Responsible parties	Timeframe	GEF (US\$)	Other (US\$)
Baseline activities report	UNIDO Project Manager (Task Manager)	3 months after the start of the project	N.A	30,000
Regional Ministerial Committee meetings report	Regional Coordinator	On biannual basis	20,000	20,000
Regional Steering Committee reports	Regional Coordinator	Twice a year	30,000	40,000
PIR	RCU/UNIDO	Once a year	0	20,000
Mid-term review report	UNIDO Project Manager, international consultant and UNIDO M&E branch	After two years of the start of the project	20,000	30,000
Terminal evaluation including financial auditing	UNIDO M&E branch and independent evaluation consultant	At the end of the project	25,000	20,000
Total			95,000	160,000

90. The mid-term review will assess the criteria used for hot spots identification, impact on stakeholders, progress of IMS and public education and the progress of the methodology for site identification/investigation/use of toolkit for appropriate technology selection as well as the review will cover the government's response to the proposed policy/legal framework. Output 6 also covers the M&E approach for both technical and logistic implementation indicators. The monitoring and evaluation GEF budget is US\$ 95,000 (excluding UNIDO staff costs, which are covered by the Agency fee). The M&E plan is given in Annex 4.

SECTION G. PRIOR OBLIGATIONS AND PREREQUISITES

91. The project puts emphasis on full stakeholders' involvement and hence their commitment to participation should be assured preferably in writing. The participating Government counterparts should provide all the physical facilities like office premises, conference facilities, all relevant logistics for RMC, RSC, NCU for field workshops and training courses and for information management system. These will be covered by their in-kind contribution to the project.
92. UNIDO should provide its office space (probably in Abuja and/or Lagos and Accra) for the establishment of the RCU with relevant support staff.

SECTION H. LEGAL CONTEXT

93. This project document shall be the instrument referred to the Standard Basic Agreement between the Governments of Ghana and Nigeria and UNIDO. The project objectives shall be in line with the objectives of the Policies of the Governments of Ghana and Nigeria.
94. The following types of revisions may be made to this Project Document with the signature of the Project Manager, provided he or she is assured that the other signatories of the Project Document have no objection to the changes:
 - Revision in, or addition of, any of the annexes of the Project Document.
 - Revisions that do not involve significant changes in the immediate subcomponents, objectives, outcomes or activities of the project, but are caused by the rearrangement of the inputs already agreed to or by cost increases due to inflation.

**REGIONAL PROJECT TO DEVELOP APPROPRIATE
STRATEGIES FOR IDENTIFYING SITES CONTAMINATED
BY CHEMICALS LISTED IN ANNEXES A, B AND/OR C OF
THE STOCKHOLM CONVENTION**

ANNEXES

(revised 30 Aug. 2007)

TABLE OF CONTENTS

		PAGE
ANNEX 1	INCREMENTAL COST ANALYSIS	1
ANNEX 2	LOGICAL FRAMEWORK (LOGFRAME) ANALYSIS	8
ANNEX 3A	STAP REVIEW	16
ANNEX 3B	UNIDO RESPONSE TO STAP REVIEW	22
ANNEX 3C	FAO COMMENTS AND UNIDO RESPONSE	23
ANNEX 4	MONITORING AND EVALUATION PLAN	24
ANNEX 5	TERMS OF REFERENCE FOR CONSULTANTS AND SUBCONTRACT	27
ANNEX 6	RESULTS OF PDF-B IMPLEMENTATION	45
	Appendix 1: MINUTES OF 1 ST , 2 ND and 3 RD PROJECT STEERING COMMITTEE MEETINGS	
	Appendix 2: NGO/CIVIL SOCIETY COMMITMENT TO PROJECT	
	Appendix 3: SAICM AFRICA REGIONAL GROUP REPORT	
ANNEX 7	PPG COMPLETION REPORT	61
ANNEX 8	CO-FINANCING LETTERS (on separate files)	70

ANNEX 1: INCREMENTAL COST ANALYSIS

Regional Context and Broad Development Goals

Many countries in Africa such as Ghana and Nigeria recognize the problem of sustainability that ongoing POPs project would face where they deal only with the problem of disposal of stockpiles while ignoring the related problem of subsequent cleanup of sites contaminated with POPs chemicals. Such contaminated sites if redeveloped or redeployed for agricultural or housing purposes will pose significant and immediate threats to human and animal health and the environment. It is always cheaper to take precautionary and preventive action before using contaminated land for rural or urban development or put into agriculture so as to avoid expensive mistakes such as the Love Canal saga in the USA. Ghana and Nigeria have consequently approached UNIDO to assist them through GEF grant to develop policies and regulations for the rehabilitation of contaminated sites, capacity building in identifying contaminated land and in selection of methodology for site remediation, public education, setting up of Information Management System (IMS). At a later stage, through public-private partnership and other donors' support, it is expected to promote proper clean up of such sites while promoting the transfer of appropriate remediation technologies conforming to Best Available Techniques (BAT) and Best Environmental Practices (BEP) in accordance with the guidelines prepared by the Open-ended Working Expert Group on BAT/BEP of the Stockholm Convention.

The proposed project will take up the issue of POPs contaminated lands/sites in the region. It will provide the necessary policy/legal framework as well as national/regional incentive to identify POPs contaminated land and undertake remediation measures after a thorough scientific and technical analysis of various parameters based on Risk Based Decision Making (RBDM). The goal of the stakeholders' involvement and highlighting public-private partnership for any future development of contaminated land/sites has been adequately addressed by the project. Geoenvironmental Centres, which will deal with technical aspects of site identification and experimental scale model testing will be established in existing institutions in the participating countries. Public awareness and education is given great importance for reliability, responsibility and sustainability.

Baseline

The total cost of the project is US\$ 4,830,00 including funds expended for the PDF-B (US\$ 730,000 with US\$ 80,000 as co-financing). The GEF contribution to the project, which is the subject of this proposal, is US\$ 2,000,000. The Government of Ghana and Nigeria and other donors including UNIDO and GRC-Cardiff and others will contribute US\$ 2,100,000. The total baseline is estimated at US\$ 5,020,000. The project has five major outputs and the Government baseline estimated for each output is based on the existing facilities and capabilities of the countries at the time of the preparation of the project. The baseline takes into account the efficient use of existing facilities and human resources for each output. To achieve the outputs, the corresponding costs of clean up of potential POPs contaminated hotspots that will result in national and regional benefits is taken into consideration. It will also have considerable benefits in reducing health risks to those exposed to the contaminated sites. In addition, it will potentially boost revenue income from the use of cleaned up land for various economic, residential and social activities. In order to develop the participating countries' capacity building in this field to achieve national or international standards, the costs to overcome the barriers have been calculated based on experiences in similar activities in developed countries. The accrued benefits of the project from maximum stakeholders' involvement have induced interest of the private sector particularly when the Geo-environmental Research Centre of Cardiff University was involved in the public participation strategy as a technical and scientific institution providing services to the project. Thus, increased public knowledge and awareness will catalyze public-private partnership.

A detailed analysis of both pollutant pathways and benefits of the projects on recovered sites following the remediation and even by containment of the soil contaminants with regular monitoring to assess the direct and indirect benefits to the community living nearby and to the environment would be necessary. In order to achieve this capability and prevention of future POPs contamination in the region, five major outputs of the project brief would facilitate the removal of barriers. Therefore the relative GEF, Government and donor contributions presented in this report represent a satisfactory "cost sharing arrangement". The high baseline cost given to Components 4 and 5 was due to the fact that both Ghana and Nigeria have good infrastructure (human and physical) for chemical analysis,

data information collection/storage/dissemination, active press/media. However, in order to achieve good coordination, development of technology and proper risk assessment/ management and create regional stakeholders' awareness, the barriers removal cost is high as reflected in the cost matrix table.

Summary Incremental Cost Matrix in US\$

<i>Component</i>	<i>Baseline</i>	<i>Alternative</i>	<i>GEF</i>	<i>Co-finance (Region)</i>	<i>Co-finance Nigeria (cash)</i>	<i>Co-finance (Donors incl. UNIDO)</i>
Project Coordination	50,000	605,000	240,000	100,000	47,500	217,500
Regional Policy/Legal Framework Enactment	100,000	500,000	250,000	100,000	75,000	75,000
National and regional capacity building and institutional strengthening	600,000	475,000	275,000	50,000	75,000	75,000
Toolkit for environmentally sound and economically feasible remediation technologies and establishment of national Geo-environmental Centres	2,520,000	1,710,000	935,000	150,000	532,500	92,500
IMS/public awareness and environment education	1,700,000	555,000	205,000	50,000	125,000	175,000
M&E Plan	50,000	255,000	95,000	50,000	45,000	65,000
TOTAL	5,020,000	4,100,000	2,000,000	500,000	900,000	700,000

The GEF Alternative:

The GEF alternative (GEF contribution plus co-financing) for each component including the M&E plan are given based on the estimated barrier removal cost. For project coordination, the GEF alternative will provide US\$ 605,000, for regional policy and legal framework, US\$ 500,000, for national and regional capacity building and institutional strengthening US\$ 475,000, for methodology and technology selection, US\$ 1,710,000, for IMS, public awareness and environmental education US\$ 555,000 and for monitoring and evaluation US\$ 255,000. The barrier removal and replicability of the outputs in other parts of the ECOWAS region will have a long-term beneficial effect in reducing the overall barrier cost removal. It should also be borne in mind that the project deals with a multidisciplinary and complicated area of soil decontamination and the incremental cost depends very much on the value of the contaminated land depending on its location and the type of use it is likely to be put viz commercial, social, educational or agricultural use.

Incremental Costs and Project Financing

Component	Sub-component	Increment in US\$					
		GEF	Ghana	Nigeria	Nigeria Cash contribution	UNIDO	Other Donors
1. Project Coordination	1.1 Establish RMC for Ghana and Nigeria	50,000	10,000	10,000			
	1.2. Establish RSC with TOR						
	1.3. Establish RCU with TOR and all support facilities						
	1.4. Recruit CTA	60,000					
	1.5. Appoint Regional Coordinator and admin. staff (maximize synergies and avoid regional duplication)				22,500	120,000	47,500
	1.6 Recruit two National Programme Coordinators and admin. staff	90,000	20,000	20,000			
	1.7. Establish all NCUs with TOR	10,000	10,000	10,000		50,000	
	1.8. Equip RCU with all required facilities including office space rent				20,000		
1.9. Skill share workshops for RMC/RCU and regular review meetings	30,000	10,000	10,000	5,000			
Sub-Total		240,000	50,000	50,000	47,500	170,000	47,500

Component	Sub-component	Increment in US\$					
		GEF	Ghana	Nigeria	Nigeria Cash contribution	UNIDO	Other Donors
2. Regional Policy/Legal Framework	2.1. Develop regional policy for management of contaminated sites. 2.2. Recruit international and national experts to assist in drafting of environmental legislation. 2.3. Develop, reform existing policies to cover management of contaminated sites. 2.4. Keep RMC fully informed of the policies developed to facilitate enactment.	200,000	40,000	40,000	60,000	0	60,000
	2.5. Organize and conduct regional/national training programme for staff on requirements/enforcement of legal framework.	50,000	10,000	10,000	15,000	0	15,000
Sub-Total		250,000	50,000	50,000	75,000	0	75,000
3. National and Regional capacity building and institutional strengthening	3.1. Regional/national classification system. 3.2. Strengthening of institutional capacity for mitigation of land contamination and sustainable contaminated land management. 3.3. Human resource capacity development on sustainable methodologies for contaminated land site identification and remediation.	25,000	5,000	5,000	10,000		10,000

Component	Sub-component	Increment in US\$					
		GEF	Ghana	Nigeria	Nigeria Cash contribution	UNIDO	Other Donors
	3.4. Programmes for stakeholder involvement, public awareness and education programmes.	250,000	20,000	20,000	65,000		65,000
<i>Subtotal</i>		<i>275,000</i>	<i>25,000</i>	<i>25,000</i>	<i>75,000</i>	<i>0</i>	<i>75,000</i>
4. Toolkit for selection of environmentally and economically feasible remediation technologies for Ghana and Nigeria and establishment of national Geo-environmental Centres	<p>4.1. Establish two geo-environmental centres in participating countries.</p> <p>4.2. Develop methodology for the systematic and stepwise identification of potentially POPs contaminated sites with regional context (including all risk studies).</p> <p>4.3. Develop an analytical toolkit for decision/support system for environmentally sound and economically feasible technologies for contaminated sites.</p> <p>4.4 Deploy selected methodology and framework for the identification and selection of appropriate low-cost remediation technology for POPs contaminated sites based on samples taken from the contaminated sites.</p> <p><i>Note: GEF funds will be used to develop the methodology and not for remediation purposes.</i></p>	785,000	55,000	55,000	275,000		50,000

Component	Sub-component	Increment in US\$					
		GEF	Ghana	Nigeria	Nigeria Cash contribution	UNIDO	Other Donors
	4.5. Undertake experimental project(s) to verify effectiveness of low-cost technology and validate site selection methodology, framework for remediation technology selection and the selected technology option. <i>Note: GEF funds will be used to develop the methodology and not for remediation purposes.</i>	150,000	20,000	20,000	257,500	0	42,500
Subtotal		935,000	75,000	75,000	532,500	0	92,500
5. IMS, public awareness and environmental education	5.1. Develop project strategy for communication for all parties' engagement.	75,000	5,000	5,000	40,000	0	20,000
	5.2. Establish effective national database on POPs contaminated sites.				20,000		
	5.3. Establish IMS as per requirements for a 10-year IMS strategic plan.	42,000	8,000	8,000	20,000	100,000	10,000
	5.4. Organize programmes of education and awareness for all relevant stakeholders including ECOWAS region.	42,000	8,000	8,000	20,000	10,000	10,000
	5.5. Develop/deploy complimentary websites, newsletters for regional dissemination of POPs related information	46,000	4,000	4,000	25,000	0	25,000
Subtotal		205,000	25,000	25,000	125,000	110,000	65,000

Component	Sub-component	Increment in US\$					
		GEF	Ghana	Nigeria	Nigeria Cash contribution	UNIDO	Other Donors
6. Regional M&E Plan	6.1. Develop/assess baseline for M&E indicators for the project outputs	25,000	5,000	5,000	15,000	0	15,000
	6.2 Establish a socio-economic assessment and indicators for POPs exposures due to POPs contaminated sites	20,000	5,000	5,000	10,000	0	10,000
	6.3 Mid-term and Terminal Project Review exercises (excluding UNIDO staff time)	20,000	5,000	5,000	0	20,000	0
	6.4 M&E of the various non-civil society stakeholders	20,000	5,000	5,000	10,000	0	10,000
	6.5 Involve civil society/participation in M&E	10,000	5,000	5,000	10,000		10,000
Subtotal		<i>95,000</i>	<i>25,000</i>	<i>25,000</i>	<i>45,000</i>	<i>20,000</i>	<i>45,000</i>
GRAND TOTAL	4,100,000	2,000,000	250,000	250,000	900,000	300,000	400,000

ANNEX 2: LOGICAL FRAMEWORK ANALYSIS

Intervention Logic	Objectively Verifiable Indicators	Sources of Verification	Assumptions and Risks
Overall Objective			
Long Term Objective:	- Regional capacity developed to identify and take risk-based decision to clean-up and monitor POPs contaminated sites.	- Policies/legal framework enacted as law and tool kit available for site/ methodology identification and Centres of Excellence.	- Policies are enshrined and enforcement mechanism worked out.
Mid-Term Objective:	- Experimental scale testing on site remediation carried out and results analysed, public/NGO knowledge enhanced.	- Geoenvironmental Centres established; results of experimental scale testing.	- Experimental scale results not conclusive.
Short-Term Objective:	- Policy/legal framework drafted, stakeholders involved, RCU formed, various committees established.	- Workshops/seminars carried out, trained people on board, minutes of committee meetings.	- RCU provided with premises and regional character maintained.
Output 1: A suitable regional organization/arrangement for timely and well monitored implementation of the project			
<ul style="list-style-type: none"> - Establish a high level Regional Ministerial Committee (RMC) for overall supervision of the project and meeting twice annually. - Establish a Regional Steering Committee (RSC) to monitor the progress of the project and make recommendations for any changes/modifications to activities, outputs and budget allocations. Prepare terms of reference. - Establish a Regional Coordination Unit (RCU) for day-to-day implementation of the project. Prepare terms of reference for the Unit. - Recruit Chief Technical Advisor. 	<ul style="list-style-type: none"> - Organizational set-up with RMC, RCU and NCU in place. Terms of Reference for all units/committees and well-defined workplan prepared. 	<ul style="list-style-type: none"> - RMC established, RCU at UNIDO Regional Office with 3 staff members (2 part-time and 1 full time) with office facilities, NCUs established in government offices. - Channel of communication, minutes of meetings, recruitment of experts, reports 	<ul style="list-style-type: none"> - Members of RMC are at high-level policy makers. - Reasonable office premises given by the government with administration staff and furniture. - A broadly representative RSC appointed by the RMC. - Capacity and will to undertake and invest in successful knowledge /skills sharing workshops.

Intervention Logic	Objectively Verifiable Indicators	Sources of Verification	Assumptions and Risks
<ul style="list-style-type: none"> - Appoint Regional Co-ordinator (maximize synergies and avoid regional duplication) and National Programme Coordinators and administrative staff for the RCU. - Establish all the National Coordination Units (NCU) and prepare terms of reference. - Equip both RCU and NCU with office equipment and other facilities as agreed during the project implementation. - Skill share workshops in Ghana and Nigeria annually for project teams (RMC and RCU) and other potential country participation 			
Output 2: Establishment of Regional Policy and National Legal frameworks for the management of contaminated sites			
<ul style="list-style-type: none"> - Recruit national and international experts to assist in policy and legislation development - Develop regional policy for the management, (enforcement, monitoring, evaluation and remediation) of contaminated environment based on a risk assessment model. - Keep the RMC fully informed of the policies developed and take overall responsibility for monitoring the implementation of the policy when enacted through national legislation. - Develop and obtain approval of policies and to have overall responsibility for monitoring the implementation of the policy when enacted through national legislation. 	<ul style="list-style-type: none"> - Policy/legal framework on POPs contaminated soils drafted, passed parliaments of Nigeria and Ghana and incorporated as part of the government land use management plans in place. At least 2-4 enforcement cases reported based on toolkit using identification techniques and risk assessment studies. - Two awareness and stakeholders workshops on policy and enforcement issues of POPs contaminated land organized and evaluated. - Organization of regional seminars on policies and capacity building in cooperation with ECOWAS. 	<ul style="list-style-type: none"> - Draft policy/legal framework discussed by Parliament. - Staff allotted with responsibilities for enforcement and stakeholders made aware. 	<ul style="list-style-type: none"> - Individuals with sufficient expertise can be identified and recruited. - Stakeholders actively engage in the development of the draft regional policy. - Sufficient political will to adopt draft policy and stakeholders actively engage in the monitoring of its implementation. - Sufficient legislative time is provided for the drafting and passing of national legislation. - Dependent on the adoption of the regional policy and enactment into national law. Requires commitment from regulatory staff to attend training courses.

Intervention Logic	Objectively Verifiable Indicators	Sources of Verification	Assumptions and Risks
<ul style="list-style-type: none"> - Develop, reform and extend existing policy and legislation to cover the management of contaminated environment. - Establish regional/national training programmes for staff and major stakeholders in the enforcement of the legal framework. 			<ul style="list-style-type: none"> - Agreement on terms of reference for the unit and its location. Sufficient resources made available to ensure efficient functioning. - RSC/RMC kept fully informed in order to speed up legislation/ enactment process.
Output 3: National and Regional capacity building and institutional strengthening			
<ul style="list-style-type: none"> - Recruit national and international experts in capacity building, institutional strengthening, human resource capacity development and capacity for stakeholder engagement, public awareness and education programmes. - Establish working group formed from local and national experts and other key stakeholders. - Establish two Geoenvironmental Centres; one in Ghana and one in Nigeria. - Organize intensive course on Geoenvironmental Engineering to cover risk assessment, site investigation (desk and field), contamination and remediation, i.e. train the trainers. - Develop rational approach for site classification based on risk management. - Prepare Regional / National classification guidelines documents - Establish R&D units (or contaminated land mitigation units) in Ghana and Nigeria. 	<ul style="list-style-type: none"> - Regional/national classification guidelines documents produced including trained staff for POPs contaminated site identification, risk assessment/management. - Two Geoenvironmental Centres established and operational in the two countries. - Specialised contaminated sites units established in the respective Ministry of Environment of the two countries. 	<ul style="list-style-type: none"> - Document on regional/national classification guidelines, training course materials on risk assessment/risk management, training of trainers about 5 each in the participating countries. - All stakeholders fully involved in training courses. - MoU with existing laboratory (one each in Ghana and Nigeria) acting as Geoenvironmental Centre with all facilities/trained personnel. MoU established with similar institution in developed country. 	<ul style="list-style-type: none"> - Individuals with sufficient expertise can be identified and recruited. - Those trained will remain in direct employment of the project. - Capacity to be developed will be appropriate for the task to be completed. - Existence of political will of the leaders in the two countries. - Existing laboratories will be upgraded.

Intervention Logic	Objectively Verifiable Indicators	Sources of Verification	Assumptions and Risks
<ul style="list-style-type: none"> - Organize training programme (for interested stakeholders) on the mitigation of land contamination (develop indigenous experience). - Twinning of a research centre in developed country with Universities in Ghana and Nigeria, encourage sharing and collaboration. Prepare Memorandum of Understanding (MoU). - Awareness and mainstreaming. 			
Output 4: Toolkit for selection of low-cost environmentally sound and economically feasible remediation technologies and establishment of national Geoenvironmental Centres			
<ul style="list-style-type: none"> - Establish necessary drafting group for the site identification methodology - Develop methodology for the identification of potentially POPs contaminated sites in Ghana and Nigeria with a regional prospect (including all risk studies). - Inventory taking for all contaminated sites by industrial POPs in Ghana and partially in Nigeria. - Organise three (3) POPs site identification methodology stakeholder consultation workshops. - Establish the necessary technology selection framework and toolkit drafting group. - Develop site selection framework and toolkit for a decision support system for the selection of low-cost environmentally sound economically feasible technologies for the remediation of POPs contaminated sites. 	<ul style="list-style-type: none"> - Toolkit for developing systematic strategies to identify POPs contaminated lands and selection of appropriate low-cost technology for contaminated land remediation. - Four pilot experimental scale tests performed in the 2 countries using the toolkit to verify and validate 	<ul style="list-style-type: none"> - Documented evidence for identification strategies (risk studies). - Physical existence of toolkit for contaminated site identification and technology selection. Results of cleaning up of experimental scale clean up operations. 	<ul style="list-style-type: none"> - The site identification methodology and technology selection framework developed are equally applicable to the West African region as well as Ghana and Nigeria. - The stakeholders of selected laboratories for equipment and personnel strengthening are willing to cooperate with the project. - Stakeholders of the selected sites for pilot studies are willing to cooperate with the project. - The developed methodology for site identification and technology selection are correct. - The selected technologies will clean up the analytical study sites to the required level.

Intervention Logic	Objectively Verifiable Indicators	Sources of Verification	Assumptions and Risks
<ul style="list-style-type: none"> - Organise three (3) POPs technology selection/framework stakeholder consultation workshops. - Establish the deployment and analytical studies working group. - Identify and select laboratories in both Ghana and Nigeria to undertake laboratory testing of selected technology framework - Deployment of the selected methodology and framework for the selection of low-cost appropriate remediation technology for POPs contaminated sites. - Strengthening laboratory capacities in equipment and personnel. - Undertake laboratory trials to check the suitability of selected methodology - Identify up to four (4) POPs contaminated sites (2 in each participating country). - Undertake experimental Project(s) in the designated sites in Ghana and Nigeria to verify and validate the site selection methodology, the framework for remediation technology selection and the selected technology option. 			
Output 5: Establishment of Environmental IMS, a framework for stakeholder engagement and a Public Educational and Awareness Programme			
<ul style="list-style-type: none"> - Recruit local and national experts for IMS, stakeholder engagement and public Educational and Awareness Programmes. - Establish a project strategy for communication and stakeholder engagement including a long-term strategic communication plan. 	<ul style="list-style-type: none"> - An IMS set-up based on toolkit for systematic investigation and identification of POPs (and other PTS) contaminated sites. - Linkage to UNIDO's electronic portal on contaminated sites. 	<p>A website on contaminated sites, newsletters, environment/economic indicators, press reports, public awareness campaign, promotion of private-public partnership.</p>	<ul style="list-style-type: none"> - Individuals with sufficient expertise can be identified and recruited. - The elements of sustainability described in the Sustainability section of this proposal have been successfully met.

Intervention Logic	Objectively Verifiable Indicators	Sources of Verification	Assumptions and Risks
<ul style="list-style-type: none"> - Establish the necessary POPs potentially contaminated sites database working group. - Establish an effective, national database for potentially contaminated POPs sites. - Establish an Environmental IMS working group to specifically develop and deploy a 10-year Environmental IMS Strategic Plan. - Establish an effective Environmental IMS to include relevant stakeholder information dissemination, assessment tools, classification system, remediation methodologies and best practices techniques. - Strengthening of IMS capacities in equipment and personnel. - Organise three (3) IMS stakeholder consultation workshops. - Undertake activities necessary to strengthen understanding of POPs issues through programmes of education and awareness for all relevant stakeholders. - Identify and engage with all relevant sector stakeholders. - Organise at least two (2) POPs networking / workshop events per year in each country. - Disseminate information, knowledge, legislative updates and best practise across all aspect of POPs. 	<ul style="list-style-type: none"> - Records of public awareness/ education campaign and health impact data due to contaminated (POPs) sites available in the IMS. 		<ul style="list-style-type: none"> - Education and awareness programme are capable of being successfully received by all stakeholders equally. - Single country successes by both IMS and issue awareness programmes are able to translate into more regional applications. - A key assumption is that sufficient stakeholder interest can be fostered to participate in and engage positively with the activities for information dissemination, networking, workshops and education and awareness programmes.

Intervention Logic	Objectively Verifiable Indicators	Sources of Verification	Assumptions and Risks
<ul style="list-style-type: none"> - Plan and host at least two (2) meetings per year of the POPs Stakeholder Engagement Committee (SEC) to champion stakeholder interests and development of education and awareness campaigns in each country. - Development and deployment of complimentary websites, newsletters and systems for internal and external dissemination of POPs related information and key messages. 			
Output 6: Regional monitoring and evaluation plan			
<ul style="list-style-type: none"> - Recruit local and national experts. - Establish the necessary M&E guidelines drafting working group. - Establish baseline indicators according to the GEF M&E guidelines. - Organise three (3) M&E indicator guidelines consultation workshops. - Establish the necessary UNIDO Evaluation and Review Mechanism Drafting Committee. - Review the monitoring mechanisms (to include project performance and evaluation review (PPER), Tripartite Review (TPR), mid-term independent evaluation and external evaluation). - Active involvement and participation in the GEF annual Project Implementation Review (PIR). - Proactively collect and analyse M&E activities from each of the other project outputs. 	<ul style="list-style-type: none"> - Assessed and documented baseline indicators at the beginning of the project. - Four PIRs, 8 RSC reports and mid-term review report prepared. - Two RMC meetings organized. - Final Terminal evaluation report prepared. 	<ul style="list-style-type: none"> - Achievements of outputs and timely implementation reports - Stakeholders' cooperation/commitment, evidence of private-public partnership, sustainability/replicability of outputs, reports on mid-term evaluation, if any. 	<ul style="list-style-type: none"> - M&E should not be overlooked. - Individuals with sufficient expertise can be identified and recruited. - Sufficient funds made available for internal/external evaluation in accordance with GEF/UNIDO policies and procedure.

Intervention Logic	Objectively Verifiable Indicators	Sources of Verification	Assumptions and Risks
<ul style="list-style-type: none"> - Actively assist and monitor the M&E for all other tasks and activities from project outputs. - Collate and structure the M&E priorities from all project outputs into a single consolidated plan for the project. 			

ANNEX 3A: STAP REVIEW**STAP TECHNICAL REVIEW OF GEF PROJECT PROPOSALS****Subject of the Review:**

Project name: Regional project to develop appropriate strategies for identifying sites contaminated by chemicals listed in Annexes A, B and/or C of the Stockholm Convention

Requesting countries: Republic of Ghana and Federal Republic of Nigeria

Background and justification:

While most of the developing countries and the countries in economic transition banned agricultural and industrial Persistent Organic Pollutants (POPs) decades ago, they are burdened with obsolete stocks of POPs pesticides lying in unattended warehouses, buried underneath the ground without proper records and protective and monitoring measures, and PCBs contaminated and leaking electrical equipment. In addition, there is practically no knowledge/information to the public at large regarding the release of unintentionally produced highly toxic by-products namely dioxins and furans (also HCB and PCBs) from various industrial and non-industrial categories specified in Annex C, Article 5 of the Stockholm Convention.

Project clearly illustrates that presently the major types of chemicals used in Ghana and Nigeria are imported. Many of them are used in or arise from industry, agricultural and public health vector disease control. The inventory of obsolete pesticides has shown that there are stockpiles of persistent organic pollutants, which need to be disposed of since they are associated with risks to health and the environment.

The results of inventories carried out in Ghana and Nigeria as part of the preparation of their National Implementation Plan (NIP) indicated that there are several hundreds of metric tons of stockpiles/obsolete pesticides, which may include POPs pesticides. Sites where the stockpiles are stored need to be investigated for possible soil and ground water contamination. Potential sources of POPs releases in Ghana and Nigeria include:

- Locations where electrical equipment (particularly transformers and capacitors) were serviced
- Areas where spillages occurred during the filling of such equipment with PCBs
- Poorly designed and maintained storage sites;
- Locations where POPs wastes were/are potentially dumped (including co-disposal of hazardous and/or domestic waste);
- Waste discharges from chemical plants, where elemental chlorine is involved in the technology;
- Sewage sludge treatment plants; and
- Former organochlorine pesticides manufacturing/formulation plants;

The immediate surroundings of all leaking transformers are potential contaminated sites. This could be as a result of spillage resulting from maintenance operations of the main utility service providers. Transformers are occasionally filled or topped up with oil, which could be PCB oil. PCB- containing wastes for example may also be found at the Accra Central Station of the Electricity Company of Ghana, where broken down transformers from all over the country are repaired. This is located in the city's biggest open market where all types of goods, including vegetables, fruits, groceries, clothes and other goods are sold. There is a drainage which carries all spilled oil into the sea thus if the transformer oil is contaminated with PCBs it is a major hot spot not only contaminating the local areas but also international waters. In Nigeria similar sites contaminated with PCBs may be found at Ijora warehouse of the Power Holding Company of Nigeria.

Available evidence indicates that contents of the dirty oil (PCB contaminated oil) reservoir in both countries are unofficially and illegally sold out to:

- Enterprising women who illegally use the oil or possibly PCBs to formulate beauty creams for sale on the open market

- Welders for use in welding machines as coolants
- People who apply them as lubricants in domestic sewing machines
- Other entrepreneurs who formulate mixtures with sawdust for industrial and domestic use as fuel

Scientific and technical soundness of the project:

There are unconfirmed reports of volumes of pesticides containers buried at some specific locations. For example in Ghana, it is alleged that the pesticides containers, might include POPs pesticides, were buried in the early 1970's at the premises of the Plant Protection and Regulatory Services Department (PPRSD) at Pokuase in the Ga District of the Greater Accra Region as well as at the Tono and Veia Irrigation projects in the Upper East Region. These locations are within important river basins such as the Densu and Volta. Similarly in Nigeria the African Stockpile Programme has identified some warehouses where obsolete pesticides including POPs are stocked. These places are: Lagos, Kaduna, Ibadan and Kano.

Following the identification of hotspots using the proposed methodology for site identification and after the selection of the economically viable and environmentally friendly remediation technologies, pilot scale remediation experiments for low cost technologies will be undertaken in both Nigeria and Ghana. Special emphasis will be given to sites that can be considered as hot spots of contamination.

Suitable training and supervisory assistance will also be provided to Ghana and Nigeria by linkage and partnership arrangement with relevant institution(s) in the developed world. Most importantly the proposed project will bring out two sets of toolkit; one for the systematic identification of land/sites contaminated by POPs and the other for methodologies to be adopted in the region for decontamination using low cost technologies. Such toolkits will benefit the whole of the Africa region.

The immediate objective of the programme includes:

- Policy and legal frameworks developed for management of contaminated lands/sites;
- Institutional capacity strengthened for mitigation of land contamination and sustainable land management.

List of outputs and activities summarized what will be done in this project.

Identification of the global environmental benefits and/or drawbacks of the project:

Project is focused to the help with removing barriers to the further adoption and effective implementation of available technologies.

This project is also very important for the developing of market with waste treatment technologies and broader competition.

However, many countries in Africa such as Ghana and Nigeria recognize the problem of sustainability that ongoing POPs project would face where they deal only with the problem of disposal of stockpiles while ignoring the related problem of subsequent cleanup of sites contaminated with POPs chemicals. Such contaminated sites if redeveloped or redeployed for agricultural or housing purposes will pose significant and immediate threats to human and animal health and the environment.

Fitting of project within the context of the goals of GEF:

Nigeria and Ghana have consequently approached UNIDO to assist them through GEF funding to develop policies and regulations for the rehabilitation of contaminated sites, capacity building in identifying contaminated land and in selection methodology for site remediation, public education, setting up of Information Management System (IMS) and at a later stage through public-private partnership and other donors support, promote proper clean up of such sites while promoting the transfer of appropriate remediation technologies conforming to Best Available Techniques (BAT) and Best Environmental Practices (BEP).

The inventory of obsolete pesticides and other Persistent Organic Pollutants (POPs) chemical stocks is an integral component of the GEF funded Enabling Activities for the development of the National

Implementation Plans (NIP) underway in Ghana and Nigeria and is expected to provide national listings of chemicals contaminated sites. The listings are not, however, associated with the identification of the risks to health and the environment that these sites pose. Both countries are covering NIP activities with the support of UNIDO and are aware of the fact that identification of contaminated sites for developing an inventory is very complicated with no available data.

Regional and/or global context:

The project is example of potential joint and useful collaboration between international bodies such as GEF and national authorities (local Government) and local private sector for future efforts which will be undertaken pursuant to the Stockholm Convention.

Important aspect is that the real regional hotspot was selected for this model study and results can be very useful for other GEF Projects in this part of Africa or in other part of Globe.

Demonstration of this approach in the region of Africa is very suitable, because a lot of countries in this part of Africa have huge amount of contaminated sites.

The main outcome of the Full Project would involve development of policy and legal frameworks for the management of POPs contaminated lands/sites in Ghana and Nigeria and possible use of this experience to extend the results to the West African region. It would also include activities leading to enhance national and regional assessment capacity and institutional strengthening on issues of POPs contaminated lands/sites. Over and above it will establish planning details for pilot case demonstration for identification and assessment of use of low cost but environmentally sound remediation technologies in selected hotspots in the two participating countries. The activities would also address outcome of issues of socio-economic importance namely Stakeholder Involvement and Establishment of Information Management System (IMS), Public Awareness and Environmental Education Programme.

Therefore a regional approach will have a far-reaching effect for other countries in the region to move towards environmentally sustainable economic and industrial development.

The successful destruction and clean-up of the POPs stockpile and associate waste matrices (e.g. contaminated soils and sediment) in the demonstration area would eliminate the source of heavily contaminated leachates that is continuously feeding into the Guinea Current Large Marine Ecosystem (GCLME) and consequently would obviate a major source of PCB to the GCLME's input inland waters, thus mitigating what is currently a very serious public health problem in the Region, while simultaneously addressing designated hotspots in the GCLME Region, which is the subject of a series of interventions under the International Waters Operational Programme (OP) # 8 of the GEF.

There are a number of ongoing programmes and projects, which are being supported by different donors in both countries, which, because they are closely related to the proposed project, provides leverage for obtaining further donor support. A summary of the ongoing programmes and projects is mentioned.

Project Design:

As previously enumerated the project is a response to address problems of inadequate capacity in developing countries in identifying and remediating POPs contaminated lands/sites based on systematic investigation and risk assessment studies.

With the ASP putting emphasis on environmentally sound disposal of obsolete stocks of POPs pesticides, an obvious follow-up is the need to develop capacity for the identification and remediation of POPs contaminated lands/sites. African countries therefore need a national/regional approach to clean the agricultural and industrial land/sites contaminated with POPs and other similar contaminants.

The overall objective of the programme is to build capacity and strengthen institutional arrangement and develop appropriate strategies for identifying sites contaminated by chemicals listed in annexes A, B and or C of Stockholm Convention. The project will also assess the viability of environmentally

sound and low-cost remediation technologies. Results of these pilot project experiences will be extended to other countries in the region.

The immediate objective of the programme includes:

- Policy and legal frameworks developed for management of contaminated lands/sites;
- Institutional capacity strengthened for mitigation of land contamination and sustainable land management.

Evidence for government commitment and sustainability:

The sustainability is described. The Governments of participated countries is mentioned.

This Project Brief takes into account sustainability by linking project benefits to countries sustainable development benefits as well as through expanding the scope of contaminants beyond the POPs group to Persistent Toxic Substances (PTS).

Available evidence indicates that contents of the dirty oil (PCB contaminated oil) reservoir in both countries are unofficially and illegally sold out to:

- Enterprising women who illegally use the oil or possibly PCBs to formulate beauty creams for sale on the open market
- Welders for use in welding machines as coolants
- People who apply them as lubricants in domestic sewing machines
- Other entrepreneurs who formulate mixtures with sawdust for industrial and domestic use as fuel

Project barriers, risks, sustainability and commitment:

Project very detailed describes potential barriers and risks of project realization.

The most important topic of information campaign concerning to the application of this approach is to describe to Civil Society that is necessary to destroy all obsolete POPs stocks and contaminated wastes because the present disposal and storage in unacceptable and potential dangerous for the environment and human.

The five principal risks that need to be taken into account for this programme and project include:

- The possibility that the programme and project will not be sustainable for financial and other reasons beyond the life of the GEF intervention.
The risk is low due to the fact that the capacity building achieved in the project would be broadly applicable to many similar toxic contaminants.
- The possibility that there exists inadequate and ineffective political will, government support and actual commitment for the Programme and Projects.
This is low since the project puts emphasis on policy/legal frame work, counties driven countries ownership approach and will be implemented under the supervision of a committee at Ministerial level indicating full commitment.
- The possibility of inadequate time frame in which to complete and achieve the outlined tasks
The risk is none due to the fact the implementation will be based on a work plan that will be monitored periodically and remedial action and adjustments made to meet the timely inputs to achieve the outputs:
- The possibility of inadequate and ineffective stakeholder participation during the project as well as the possibility of conflicting long term stakeholder priorities.
The risk is low due to the fact that during the preparation of the country NIPs and the present project brief all the stakeholders played an important role and even wanted expanded coverage of toxic contaminants and not restrict only to POPs.

The capacity building, especially in public awareness, environmental education, NGOs and stakeholders' involvement and establishment of a well functioning IMS will provide the long term knowledge upgrade of public, civil servants and civil society which will have its own momentum for providing information on POPs land pollution and consequent impact on other environmental matrices including water bodies.

In the project sufficient cooperation/linkage with projects related to Stockholm Convention in the region is envisaged in the implementation of the project.

During the project brief preparation there has been a great cooperation and understanding and full involvement and interaction among the national experts, several Ministries and NGOs in order to keep the partnership, countries ownership and countries driven approach.

There will be no creation of any new stand-alone centre but only existing institutions/laboratories will be upgraded thereby increasing the probability of long-term sustainability and replicability.

Experience gained during project brief preparation has resulted in improved understanding of the barriers to be overcome during full project implementation. The major barriers identified to date include inadequate national policy on POPs, inadequate policy and legal framework, inadequate comprehensive scientific/socio-economic data, ineffective enforcement of regulations and legislation, lack of a national classification system, absence of clear responsibilities and limited coordination, inadequate financial resources, inadequate awareness and information, lack of capacity and experience in selecting environmentally sound cost effective technology for soil remediation, lack of capacity to conduct risk management decision for contaminated land/site remediation.

Replicability of the project:

Experiences gained during the project realization in both countries can be very helpful for other countries especially as far as the better understanding of potential barriers during project implementation in other countries. This project can lead to optimum procedure with using of experiences and results, what can be important especially as far as the applications in other countries.

Most importantly the proposed project will bring out tool kits for systematic identification of sites contaminated by POPs and methodologies to be adopted in the region for decontamination of the contaminated sites. Such tool kits could eventually benefit the whole Africa region.

Project funding:

Project will be funded by GEF, the Government of Nigeria and Ghana. As I mentioned, the guarantee of national partners should be suitable if it will be done officially as soon as possible.

The items of incremental costs and project financing tables look reasonable, but it is impossible to evaluate during the short period and without more detailed description of them, how are realistic.

Linkages to other programs and action plans at regional or sub-regional levels:

Direct linkage with the development of National Implementation Plans in the Parties through GEF funded Enabling Activities exists and can be very useful as a potential additional application of this approach and technology or potential future co-operation of countries of Africa in the destruction of waste in both countries. The experiences and information from this project realization should be a valuable resource for many others.

Other beneficial or damaging environmental effects:

Projects also briefly summarize global benefits for other GEF projects such as conservation of biological diversity or improved water quality and explain the potential effects of environmental present POPs for these global problems.

Degree of involvement of stakeholders in the project:

The role of stakeholders in the phase of Project preparation is described as a unique and can be very helpful during the future steps of project implementation and realization. Project will organize and covered some additional workshops and activities for better public understanding of the project.

Throughout the project preparation stakeholders' participation and discussions were given cardinal importance and this will continue to be a major feature of the project implementation. The project will stress participation within the two countries through workshops, IMS and dissemination of information giving transparency. NGOs along with relevant ministries will be part of the public awareness and environmental education programmes.

Summary:

The Project "Regional project to develop appropriate strategies for identifying sites contaminated by chemicals listed in Annexes A, B and/or C of the Stockholm Convention" has a great relevance to global and regional solution of POPs problems as far as the disposal of obsolete POPs stocks, wastes and contaminated environmental matrices such as soil or sediments.

Project defines expected risks and barriers, which can be limited steps for application in the developing countries and in the countries with economy in transition.

Based on my professional experiences, I consider this project as very well prepared and selected approach as suitable for the destruction on POPs stocks and wastes without additional harmful environmental releases.

I recommend this project to accept.

Moscow, 21/03/2006

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ANNEX 3B: UNIDO RESPONSE TO STAP REVIEW

The STAP Review given under Annex 3A is self-explanatory and does not raise any critical comments or queries regarding the project brief. It broadly agrees with the project design, objective, outputs and the activities that will be done to achieve the outputs, sustainability and replicability. Under project funding it specifically says “the items of incremental costs and project financing tables look reasonable, but it is impossible to evaluate during the short period and without more detailed description of them, how are realistic”. The authors of the project brief are aware of this and further refinement will be made during the full project preparation stage. Overall the STAP review is favourable to the contents of the project brief.

FAO comments on the GEF proposal for a Regional project to develop appropriate strategies for identifying sites contaminated by chemicals listed in Annexes A, B and/or C of the Stockholm Convention and UNIDO response

Comments:

1. The principle of a project to develop expertise, capacity and methodologies for addressing POPs (and other chemical) contaminated sites is welcome. This is a topic fraught with technical, scientific, economic and political difficulties where an objective approach is badly needed.
2. The project brief recognises the synergy with the ASP, but does not appear to be cognisant of the tools developed under the ASP and the methodologies to be applied in participating countries, including Nigeria. Each ASP country project will include a detailed national inventory and risk assessment of all obsolete pesticide stores and sites contaminated by obsolete pesticides. Thus it is anticipated that the ASP will produce a significant part of the national inventory of POPs contaminated sites in Nigeria, which the current proposal addresses. In addition the ASP could make available tools that have been developed with the support of GEF for the inventorization and risk assessment of chemical stockpiles and contaminated sites. The existence of the methodology and tools seems to fulfil one of the main objectives of the proposed project.
3. The UNIDO proposal focuses on institutional and policy development and proposes additionally to carry out pilot remediation activities. It seems that an important step may be missing from the process in that the survey process is not clearly defined and no risk assessment process is proposed which will allow sites to be prioritized for action on the basis of the risk they pose to health and the environment. Without such an assessment it is not clear on what basis sites will be selected for pilot remediation.

UNIDO response

FAO review is in support of the project and raises the issue of Risk Assessment/Management for dealing with POPs contaminated sites. In fact, this is one of the main themes of the project reflected as the systematic identification methodology to be adopted and will have the full spectrum of risk identification/risk assessment/management leading to decision making on remediation of POPs contaminated land. In line with Risk Based Decision Making (RBDM) process, there will be classification system of contaminated land based on level of contamination, location of the sites, pathway and receptors of contaminants, environmental and health indicators and consultation with all relevant stakeholders. There will be a continuous interaction with ASP programme in the region along with the strategy to prevent future contamination of soil with POPs and other PTS.

ANNEX 4: MONITORING AND EVALUATION PLAN

The project objectives, outputs, activities, information on experimental laboratory scale and technology selection will be reviewed and evaluated according to GEF/UNIDO project evaluation policies and procedures. Experimental scale tests and investigations results on at least 4 sites for land remediation of POPs contaminated sites in order to verify and validate the site selection methodology, the framework for remediation and the selected technology options based on BAT/BEP. Two committees, the Regional Ministerial Committee (RMC) and the Regional Steering Committee (RSC) will be meeting regularly to monitor and provide necessary coordination. The Regional Coordinator (RC) will prepare the reports of these meetings (RMC and RSC). The RC will prepare progress reports and submit to UNIDO Hqs. every three months. UNIDO Project Manager will submit a yearly Project Implementation Report (PIR) to the GEF Secretariat. The table below shows the activity and responsibility of stakeholders in reporting on project progress activities. This takes into account the technical aspects of implementation.

Type of M&E activity	Responsible parties	Timeframe	GEF (US\$)	Other (US\$)
Baseline activities report	UNIDO Project Manager (Task Manager)	3 months after the start of the project	N.A	30,000
Regional Ministerial Committee meetings report	Regional Coordinator	On biannual basis	20,000	20,000
Regional Steering Committee reports	Regional Coordinator	Twice a year	30,000	40,000
PIR	RCU/UNIDO	Once a year	0	20,000
Mid-term review report	UNIDO Project Manager, international consultant and UNIDO M&E branch	After two years of the start of the project	20,000	30,000
Terminal evaluation including financial auditing	UNIDO M&E branch and independent evaluation consultant	At the end of the project	25,000	20,000
Total			95,000	160,000

The mid-term review will assess the criteria used for hot spots identification, impact on stakeholders, progress of IMS and public education and the progress of the methodology for site identification/investigation/use of toolkit for appropriate technology selection as well as the review will cover the government's response to the proposed policy/legal framework. Output 6 also covers the M&E approach for both technical and logistic implementation indicators. The monitoring and evaluation GEF budget is US\$ 95,000 (excluding UNIDO staff costs, which are covered by the Agency fee). The table below shows the monitoring and evaluation plan.

Indicative Monitoring and Evaluation Plan

Intervention Logic	Targets	Objective verifiable and quantitative indicators	Results
Output 1: Regional organization/ arrangement for timely and well-monitored project implementation (Project Coordination)	<ul style="list-style-type: none"> - National/Regional coordination established for execution of various activities - All relevant key stakeholders fully involved in decision making process 	<ul style="list-style-type: none"> - Organizational set up with RMC, RCU and NCUs in place, TORs for all units/committees and well-defined workplan prepared. 	Each component of the project implemented at national/regional levels with proper coordination involving all stakeholders including government officials, civil societies and industries.

Intervention Logic	Targets	Objective verifiable and quantitative indicators	Results
<p>Output 2:</p> <p>Establishment of policy/legal framework for management of POPs contaminated sites</p>	<ul style="list-style-type: none"> - National/international experts drafting policy/legal framework for management of POPs contaminated land - Enactment of policy/legal framework as law - Trained personnel in Ghana and Nigeria for enforcement of above law - Regional seminars on policies and capacity building organized in cooperation with ECOWAS with reports 	<ul style="list-style-type: none"> - Policy/legal framework on POPs contaminated soils drafted, passed parliaments of Nigeria and Ghana and incorporated as part of the government land use management plans in place. At least 2-4 enforcement cases reported based on toolkit using identification techniques and risk assessment studies. - Two awareness and stakeholders workshops on policy and enforcement issues of POPs contaminated land organized and evaluated. - Organization of regional seminars on policies and capacity building in cooperation with ECOWAS. 	<ul style="list-style-type: none"> - POPs contaminated sites policy/legal framework enactment and enforcement systems established in the 2 countries with an outreach effect for the sub-region and in support to general land use planning.
<p>Output 3:</p> <p>National/Regional Capacity Building and institutional strengthening</p>	<ul style="list-style-type: none"> - Production of regional/national classification guidelines documents - MoU developed between research centre in a developed country and centres in Ghana and Nigeria 	<ul style="list-style-type: none"> - Regional/national classification guidelines documents produced including trained staff for POPs contaminated site identification, risk assessment/management. - Two Geoenvironmental Centres established and operational in the two countries. - Specialised contaminated sites units established in the respective Ministry of Environment of the two countries. 	<ul style="list-style-type: none"> - National/Regional capacity developed for identifying POPs contaminated sites and their classification based on risks. - Institutional capacity built on government and public/private institutions.
<p>Output 4:</p> <p>Toolkit for selection of low-cost environmentally sound remediation technology and establishment of national GCs</p>	<ul style="list-style-type: none"> - Upgrade of two laboratories to Geo-environmental centres capable of identifying/analysing POPs contaminated land. 	<ul style="list-style-type: none"> - Toolkit for developing systematic strategies to identify POPs contaminated lands and selection of appropriate low-cost technology for contaminated land remediation. 	<p>Toolkit for identification of POPs contaminated land and selection of appropriate low cost technology for remediation produced and validated</p>

Intervention Logic	Targets	Objective verifiable and quantitative indicators	Results
	<ul style="list-style-type: none"> - Training of personnel on site remediation / analysis of contaminants / risk analysis / management - Preparation of toolkit for site identification and selection of appropriate low cost remediation techniques - Experimental scale tests and investigations results on at least 4 sites for land remediation of POPs contaminated sites in order to verify and validate the site selection methodology, the framework for remediation and the selected technology options based on BAT/BEP 	<ul style="list-style-type: none"> - Four pilot experimental scale tests performed in the two countries using the toolkit to verify and validate. 	
<p>Output 5: Establishment of IMS framework for stakeholders engagement /public education/ awareness related to POPs contaminated sites</p>	<ul style="list-style-type: none"> - Data base on POPs contaminated sites and IMS training manual - Use of websites, newsletters, mapping of potential POPs contaminated sites in the region available to all stakeholders / public 	<ul style="list-style-type: none"> - An IMS set up based on toolkit for systematic investigation and identification of POPs (and other PTS) contaminated sites. - Linkage to UNIDO's electronic portal on contaminated sites. - Records of public awareness / education campaign and health impact data due to contaminated (POPs) sites available in the IMS. 	<ul style="list-style-type: none"> - The countries having access to information (IMS and Portal) at different levels for proper understanding of risk awareness/ management, avoiding future contamination of POPs. - Countries and sub-region having capacity to assess socio-economic impact of POPs contaminated sites.
<p>Output 6: Regional Monitoring and Evaluation plan</p>	<p>Objectively evaluate implementation of the project according to workplan, achievement of outputs, assessing the cost-effectiveness and sustainability of the outputs in accordance with GEF M&E policies and procedures</p>	<ul style="list-style-type: none"> - Assessed and documented baseline indicators at the beginning of the project. - Four PIRs, 8 RSC reports and mid-term review report prepared. - Two RMC meetings organized. - Final Terminal evaluation report prepared. 	<p>Progress and Terminal Evaluation reports with findings, recommendations, lessons learned and evidence of sustainability of the project outputs benefiting the region.</p>

ANNEX 5: TERMS OF REFERENCE FOR CONSULTANTS AND SUBCONTRACT

TERMS OF REFERENCES FOR INTERNATIONAL/NATIONAL CONSULTANTS

- 1. Post Title:** Chief Technical Advisor (CTA), part time

Duration: 1 to 2 months/year

Date required: September 2007 to 2010

Duty Station: Home based with field visit to Ghana, Nigeria and Cardiff (UK)

Counterparts: UNIDO Programme Manager, relevant staff of Pollution Control, Federal Ministry of Environment, Abuja, Nigeria and Ministry of Environment and Science, Accra, Ghana

Duties: The CTA, in consultation with the UNIDO project manager and the Regional Coordination will facilitate the implementation of the project both in project coordination and technical inputs needed. In this, he/she will prepare the terms of references for all the units described in organizational chart. He will closely interact with the subcontractor(s), Regional Coordinator and assist in organizing major expert group meetings and training programmes and also presents technical papers as needed. He/she will prepare necessary job descriptions for short-term consultants. He/she will make sure that the quality of inputs is in line with the requirements. He/she will be a member of the Project Steering Committee and will help in organizing the annual meetings and help in preparing the minutes of the meetings. He/she will also provide necessary help and advice in preparing the toolkit and in setting up of model experiments in soil remediation technology related to POPs contamination. The CTA is also expected to participate fully in the M&E of the project and make recommendations as needed for the project to stay on course to meet the outputs and objectives.

Qualifications: Advanced university degree in Chemistry /chemical engineering, environmental chemistry with several years of professional experience in cleaner technology in chemical industry with emphasis on agrochemicals, toxic and hazardous waste management including POPs and chemical safety. Extensive experience in implementation of UNIDO technical assistance projects is required. Working in International Conferences at senior level dealing with chemicals management, hazardous waste, environmental issues desirable. Experience in managing POPs national NIP projects desirable.

Language: English
- 2. Post Title:** Regional Coordinator

Duration: 24 m/m over a period 2007-2010

Duty Station: Home based with travel to Lagos, Accra, Cardiff, Vienna and others if needed

Counterparts: UNIDO Programme Manager, relevant staff of Pollution Control, Federal Ministry of Environment, Abuja, Nigeria and Ministry of Environment and Science, Accra, Ghana

Duties: The Regional Coordinator, in consultation with the project manager, the CTA and the project counterparts will be in charge of the Regional Coordinator Unit to be established in the Regional Industrial Development Office of UNIDO. Apart from the day-to-day administration of office, he/she is expected to coordinate all activities of the project linking both vertically and horizontally given in the project organizational chart. His/her office will be responsible for maintaining all files of the project, oversee the work of the National Coordinator Units, maintain linkage

with the Regional Steering Committee and through it the Regional Ministerial Committee. Will provide all amenities to international experts and assist in organizing regional workshops, training courses directly or through the national Coordinator units. Will make sure that all activities are performed in a timely manner in accordance with the work plan. Will participate in Regional Steering Committee and Project Steering Committee meetings as needed and submit reports. Will take active part in the M&E of the project and provide all assistance during mid-term and final evaluations. As given in the project document, submit progress reports and make sure all necessary reports are submitted in a timely manner.

Qualifications: Advanced university degree in Science or in management/economics must have several years of professional experience in managing office dealing with administration/budget management. Experience in working with international staff is a must. Experience in handling industry/environment/investment related projects, dealing with Government and NGOs very desirable.

Language: English

3. Post Title: Consultant on policy/legal framework related to POPs contaminated sites

Duration: 1 m/m during 2007 - 2010

Duty station: Home based with travel to Cardiff (UK), Ghana and Nigeria

Counterparts: UNIDO Programme Manager, relevant staff of Pollution Control, Federal Ministry of Environment, Abuja, Nigeria and Ministry of Environment and Science, Accra, Ghana

Duties: The expert, in consultation with the counterparts mentioned above and national and international consultants will provide necessary inputs for drafting a policy/legal framework on POPs contaminated sites in the two countries. Based on the work already done, the consultant will provide the necessary inputs to either amend the existing laws and give necessary advice and help in reaching the milestones ear marked in policy development. He/she is expected to follow the work plan and provide inputs for implementation of the policy once it comes into force. He/she is expected to assist short-term training groups visiting UK to show them the working methodology in developed countries such as in the UK and in the European Union.

Qualifications: A lawyer or policy analyst with long-standing experience in environmental laws and international agreements linked to environment, pollution or chemical industries. Must be familiar with national or regional policy making and methods of implementation of such laws.

Language: English

4. Post Title: Consultant on IMS, public Awareness and Environment Education related to POPs contaminated sites

Duration: 6 w/m during 2007-2010 (during the lifetime of the project)

Duty Station: Home based with travel Ghana, Nigeria and Vienna

Counterparts: UNIDO Programme Manager, relevant staff of Pollution Control, Federal Ministry of Environment, Abuja, Nigeria and Ministry of Environment and Science, Accra, Ghana

Duties: The expert, in consultation with the counterparts mentioned above and national and international consultants and will provide necessary inputs based PDF-B

findings and set up a database and an IMS to increase public awareness, stakeholders' full participation and provide transparency to the issue of POPs contaminated sites and their management and proper remediation and development if deemed necessary. He/she would be fully involved in organizing training programmes in IMS, on POPs contaminated sites in the two countries. In addition, the specialist will provide necessary inputs to "the toolkit" for systematic identification of POPs contaminated sites and selection of appropriate economically feasible technologies for site remediation in the two countries. He/she is expected to help in project evaluation and submit reports as needed following the work plan.

Qualifications: Advanced university degree in basic Science or computer science with long-standing experience in database setup, data management and public education/awareness. Experience in environmental industrial issues and working in academic or governmental or non-governmental organization is essential. Experience in developing countries desirable.

Language: English

5. Post Title: Consultant on Contaminated land remediation technologies especially low cost remediation of POPs contaminated sites

Duration: 6 w/m over a period 2007-2010

Duty Station: Home based with travel to Ghana and Nigeria

Counterparts: UNIDO Programme Manager, relevant staff of Pollution Control, Federal Ministry of Environment, Abuja, Nigeria and Ministry of Environment and Science, Accra, Ghana

Duties: The expert, in collaboration with the counterparts mentioned above and national and international consultants will provide necessary inputs in setting up of Geo-environmental Centres in Ghana and Nigeria and take necessary action to set up model experiments to develop suitable technologies for remediation of POPs contaminated sites. In this he/she will take into account BAT/BEP and the situation in the region regarding applicability and affordability. He/she will train the trainers, conduct workshops and contribute extensively to the "toolkit" on systematic identification of POPs contaminated sites and development of appropriate economically feasible and environment friendly technologies for remediation, if deemed necessary. He/she will closely interact with two laboratories chosen for the establishment of the national Geo-environmental Centres.

Qualifications: An advanced degree in civil or environmental engineering with extensive R&D experience in land remediation technology, in environmental industrial issues, managing contaminated sites, spent mining areas or steel or other chemical industries. Experience in cost/benefit analysis of land remediation is important. Experience in land development with public private partnership will be an added advantage.

Language: English

6. Post Title: Consultant on Risk Assessment/Risk Management and Hazard ranking

Duration: 4 w/m over a period 2007-2010

Duty Station: Home based with travel to Ghana and Nigeria

- Counterparts:** UNIDO Programme Manager, relevant staff of Pollution Control, Federal Ministry of Environment, Abuja, Nigeria and Ministry of Environment and Science, Accra, Ghana
- Duties:** The expert, in consultation with the counterparts mentioned above and national and international consultants will provide necessary substantive inputs in risk identification/assessment/ management related to contaminated sites of toxic chemicals and will train trainers and other experts in this topic. To this end he/she will organize workshops/seminars to counterparts including stakeholders, government officials. He/she will contribute to the “toolkit” to be prepared in the project and identify indicators and establish regular methodology of consultation process with all stakeholders. Is expected to submit reports as needed and fully assist in Monitoring and evaluation of the project at different stages of implementation.
- Qualifications:** An advanced degree in science or engineering or risk management/industrial safety with specialization in risk identification/assessment/management process. Must have good credentials of international involvement in organizing workshops, advanced training with case studies. Experience if chemical contaminated sites especially of toxic chemicals would be a major advantage.
- Language:** English
- 7. Post Title:** Consultant on socio/economic impact of toxic contaminants and indicator development
- Duration:** 3 w/m over 2007-2010
- Duty Station:** Home based with travel to Ghana and Nigeria
- Counterparts:** UNIDO Programme Manager, relevant staff of Pollution Control, Federal Ministry of Environment, Abuja, Nigeria and Ministry of Environment and Science, Accra, Ghana
- Duties:** The consultant, jointly with the counterparts mentioned above and national and international consultants will provide necessary inputs for helping in looking into socio/economic impacts in the region due to POPs and other similar toxic chemicals contaminated sites in the region. He/she will train nationals in data collection, setting up of parameters for socio/economic/health indicators, proper assessment of data taking into account reliability of interpretation. Will organize workshops in the region on socio/economic impact studies. Will also help in M&E of the project at various stages by developing set indicators and milestone apart from what has already been identified. Will help in project evaluation, reliability of data and submit reports as needed.
- Qualifications:** A lawyer or policy analyst with long-standing experience in environmental laws and international agreements linked to environment, pollution or chemical industries. Must be familiar with national or regional policy making and methods of implementation of such laws.
- Language:** English

Formation and Draft Terms of Reference for Regional Ministerial Committee (RMC)

1. Introduction:

Over the last 60-70 years, the chemical industries both in developed and developing countries have used thousands of chemicals and their innumerable intermediates and formulations for various outlets. These chemicals did vastly improve the standard of living and saved millions and millions of lives from hunger and diseases. However, some selective toxic and persistent organic chemical pollutants did remain in the environment for long periods of time. They not only migrated from one environmental matrix to another carried by air and water currents, and being lipid soluble, but also tended to enter the higher food chain and bioaccumulate in the fatty tissues of humans and animals. Following a number of consultation meetings with international experts lasting over a decade, the international community identified 12 chemicals called “the dirty dozen” and agreed that the human health and environment should be protected from these 12 persistent organic pollutants or the so-called POPs. They consisted of eight pesticides, two industrial chemicals and two highly toxic by-products called unintentionally produced POPs (UPOPs). In May 2001, more than 120 countries signed a historical treaty in Stockholm called the Stockholm Convention to protect human health and environment from these POPs. The Convention with 30 articles became legally binding during May 2004, when a 50th country ratified the convention document. To help developing countries and countries with economy in transition, which signed and ratified the Convention, the Global Environment Facility (GEF) worked out a financing mechanism for capacity building in the form of enabling activities in dealing with POPs implicated in the Stockholm Convention. UNIDO as one of the Executing Agencies with Expanded Opportunities has been helping more than 40 countries including Ghana and Nigeria in their enabling activities to prepare their National implementation Plans (NIPs).

2. NIP of Ghana and Nigeria

Under the NIP, the countries are obliged to prepare among other activities, a database covering:

- Inventory of Production
- Inventory of use
- Inventory of import/export
- Inventory of stockpiles
- Inventory of sources
- Inventory of polluted sites

During the enabling activities, countries such as Ghana and Nigeria realized the importance of problems posed by POPs contaminated sites and the problems of identifying the sites and the level of contamination. In line with Section 1e of Article 6 of the Stockholm Convention on POPs, which states: “endeavour to develop appropriate strategies for identifying sites contaminated by chemicals listed in Annexes AB and /or C, if remediation of those sites is undertaken, it should be done in an environmentally sound manner”, Ghana and Nigeria prioritised the POPs contaminated sites as one of the major issues.

3. PDF B Regional Project:

Ghana and Nigeria in a joint approach applied through UNIDO for GEF funding under the PDF-B to prepare a regional programme to develop capacity building in systematic identification of POPS contaminated sites, carry out risk assessment/prioritization and select and develop appropriate technologies for remediation and carry out remediation, if required in accordance with BAT and BEP. The PDF-B project was approved in July 2005. During the implementation of the PDF-B, the Geoenvironmental Research Centre (GRC) located at Cardiff University, UK was identified as a technical partner in dealing with POPS contaminated sites. With its vast experience in dealing with brown field sites remediation in Wales, UK under a private/public partnership and in doing R&D in land remediation and also with fully experienced staff and experimental facilities unique in Europe, GRC agreed to participate as a technical partner in the project. The above-mentioned PDF-B project was implemented with the full participation of the Federal Ministry of Environment, Nigeria, the Environmental Protection Agency (EPA) of Ghana Ministry of Environment and several national and international experts along with the technical experts of GRC, Cardiff. During September 2005-May 2006, consultations of all relevant stakeholders in Ghana and Nigeria took place and the full Project

Brief was prepared and submitted to GEF for approval. The project after going through a GEF review mechanism was cleared in August 2006. The project will be unique in the sense that it will be the first major project under the Stockholm Convention executed by UNIDO and funded by GEF and other partners to develop capacity in Ghana and Nigeria on environmentally sustainable management of POPs contaminated land /soil.

The project has six outputs and activities of the project over a four-year period will lead to these six outputs:

Output 1	A suitable organization arrangement set up for timely and well monitored implementation of the project
Output 2	Establishment of Regional policy and national legal frameworks for the management of contaminated sites
Output 3	National and Regional capacity building and institutional strengthening
Output 4	Toolkit for the selection of environmentally sound and economically feasible remediation technologies for Ghana and Nigeria
Output 5	Establishment of environmental IMS and framework for stakeholders engagement and public education and awareness programme
Output 6	Regional Monitoring and Evaluation Plan

4. Modalities of implementation:

Under the guidance of the Project Steering Committee (PSC) of the PDF-B project, the modalities of implementation of the main project were discussed in detail. Based on the experience gained during the implementation of PDF-B of the project, the organizational set up was agreed upon in the 3rd PSC meeting held at the GRC, Cardiff, UK in November 2006. It was agreed that a Regional Ministerial Committee hereafter referred to as RMC, should be an apex body of the project to broadly oversee the implementation and provide guidance and assistance to address any problems or barriers to achieve the objectives following the agreed work plan. It will also endorse any major changes if needed to the implementation of the project. It was also anticipated that such an apex body would provide full access and participation to all stakeholders and civic bodies in a participatory approach. The composition of the RMC and its functions are given below:

5. Composition of the Regional Ministerial Committee (RMC):

The members of RMC will consist of Ministers or their senior designates from the Ministry of Environment and Science, Ghana and the Federal Ministry of Environment, Nigeria. In addition, but not limited to, there will be ministers or their senior designates from the Ministries of Agriculture, Law, Land development /planning and industries.

6. Function of the RMC

The RMC, from time to time, will be debriefed by the Regional and National Coordinators of the project on the progress of implementation and give advanced information about any problems that are affecting the quality of project implementation, outputs and the workplan. The RMC will meet twice, once in Abuja and once in Accra. The meeting will be organized by the respective NCUs in consultation with the Regional Coordinator. The meeting will be chaired by the minister or designated person of the host Ministry. The National Coordinator of the host country will act as the Rapporteur for the meeting. The agenda and the papers for discussion will be prepared by the NCUs in consultation with the RCU. The meeting will discuss the progress of the project and make recommendation for future implementation and facilitate reaching the milestones earmarked with indicators related to activities and outputs. The Chief Technical Advisor (CTA) will also participate in the meetings, if possible.

The cost of the RMC meetings will come from the in-kind contribution of the Governments. The reports of the RMC meetings will be cleared at the appropriate level in the lead ministries prior to distribution.

Draft Terms of Reference for National Coordination Units (NCUs)

Introduction:

Based on the implementation of PDF B project, UNIDO, in accordance with the recommendations of the 3rd Project Steering Committee Meeting held in November 2006 at the Geoenvironmental Research Centre, Cardiff, will be setting up various units and committees to oversee and facilitate the implementation of the project. Such an implementation will follow an agreed work plan to provide the necessary inputs in order to reach the six outputs envisaged in the project.

These six outputs are as follows:

- **Output 1:** A suitable organisation arrangement set up for timely and well monitored implementation of the project
- **Output 2:** Establishment of Regional Policy and National Legal Frameworks for the management of contaminated sites
- **Output 3:** National and Regional Capacity Building and Institutional Strengthening
- **Output 4:** Tool kit for the selection of environmentally sound and economically feasible remediation technologies for Ghana and Nigeria
- **Output 5:** Establishment of environmental IMS and framework for stakeholders engagement and public educational and awareness Programme
- **Output 6:** Regional Monitoring and Evaluation Plan

Under the agreed organisation set up, UNIDO in consultation with the relevant national counterpart organisations will establish a Regional Ministerial Committee, Regional Steering Committee, Regional Coordinating Unit and two National Coordinator Units, one in Ghana and one in Nigeria, This is the terms of reference for the NCUs to be set up.

Location of NCU s

The exact location of NCUs will be decided by the Project counterpart organisations *viz* the Environment Protection Agency (EPA) of the Ministry of Science and Environment in Ghana and the Dept. of Pollution Control of the Federal Ministry of Environment in Nigeria. The office should be of reasonable office space, located in a good area with good infrastructure and communication facilities. It should have basic furniture and other utility services and support staff, which will be taken as part of the government contribution in kind.

Staff of the NCU

The NCU should have a National Project Coordinator, a programme officer and a secretary. At the early stages they will be working part time but could become full time depending on the workload with the progress of project implementation. From time to time, the NCU will also accommodate international and national experts and the Director of the proposed National Geoenvironmental Centre and the Information Management System.

Sub-units of NCUs called desks.

As already agreed, the NCUs will have four sub-units (called desks) to support various activities to be implemented under the regional project. These sub-units directly deal with the major outputs of the project at national level. These are:

- The Policy Desk, linked to Output 2
- The Remediation Technology Desk linked to Outputs 3 and 4
- IMS Desk linked to Output 5
- Public awareness/education Desk linked with all outputs

It should be noted that Output 3 on capacity building would be applicable to all sub-units (called desks) including some of the others such as the RCU and the various Committees. Each sub-unit (desk) could be located within the NCU or in a place conducive for carrying out the required activities.

Functions of NCUs:

The NCU will function under a National Coordinator who will coordinate all national activities under each output. In this, the unit will provide all the necessary services to national and international experts making use of the sub-units (desks). Under a subcontract arrangement with UNIDO, they should recruit the following national experts to work in the project alongside with project counterparts:

1. National expert in policy/legal framework development
2. National expert in capacity building in dealing with contaminated sites
3. National expert on technology development in soil remediation of sites contaminated by POPS or other toxic chemicals
4. Data collection / information management specialist
5. Monitoring and evaluation specialist

These national experts will interact with international experts in the same fields and provide support and technical inputs for the establishment of the national GRC and IMS units.

The NCUs will closely interact with relevant NGOs and private organizations to promote public/private partnership and in providing transparency to legal policy enforcement, decision process in the whole spectrum of activities regarding environmentally sustainable management of POPs and other persistent toxic chemicals contaminated soils in the countries/region.

While all the external inputs and some internal inputs will be supported under a subcontract arrangement between UNIDO and the NCU (through the project), it is important that the NCUs make sure that all local activities are fully supported from the in-kind contribution of the participating Governments as given in the project document.

Coordination of work with Regional Coordination Unit (RCU), the Regional Steering Committee and the Regional Ministerial Committee

The NCU will keep in constant contact with the RCU and is expected to meet the various requirements such as submission of suitable candidates for training both in the country and outside the region. The nomination forms will be submitted to UNIDO through the RCU. The RCU based on its terms of reference will interact with the NCUs to implement various activities. These include getting nominations of candidates for group and individual trainings. All those trained in well-known institutions abroad will conduct two training sessions during the project lifetime and will be the future trainers in their respective field.

In addition, the NCU in consultation with RCU will provide necessary information to the RSC and RMC members and help in organizing meetings as required.

Recruitment of national experts

The NCUs will be responsible for the recruitment of national experts (within and outside the subcontract) as required by the project as and when required for a specified period to support various desks. It will also provide support to international experts and other national experts (directly hired by UNIDO) assigned to the project.

The activities, but not limited to, of the sub-units (desks) are given below:

Policy Desk linked to output 2:

- Drafting of Contaminated Land Policy, legal framework strategy and regulation with special emphasis to POPs and similar chemicals.
- Risk assessment and Risk management policy requirements
- National Classification System for contaminated lands/sites
- Hold two national/regional stakeholders forums on policy matter related to POPs contaminated lands/sites including enforcement issues and understanding
- Through NCU/RCU/RSC, keep the RMC fully informed about progress and requirement to enact the policy/legal framework in an appropriate manner during the end of the second year of project implementation.

- Follow the tentative workplan for this output developed during the PDFD-B project implementation according to the timeframe for milestones (likely to change depending on the approval date of full project.)

First draft of national policy in place	December 2007
Final national policy in place	September 2008
Policy legal framework enacted	December 2008 to January 2009
Monitoring enactment/enforcement	December 2008 to December 2010

The Remediation Technology desk linked to Outputs 3 and 4:

- Along with national/international experts and the RCU, organize local/national training needs on various aspects of contaminated land including IMS for decision-making support tool.
- Make necessary preparations to assist the Director of the GRCs in Ghana and Nigeria on the physical establishment (building, staff, basic equipment and new equipment) of National GRC within a selected institution.
- Recruit national experts to work along with international expert to develop the systematic identification of POPs contaminated sites and development of suitable technology for remediation of such contaminated sites if deemed necessary in accordance with national/regional risk assessment /management requirements and taking into account BAT/BEP.
- Provide necessary support to GRC, Cardiff and the RCU in preparing the proposed toolkit for systematic identification and technology selection process.

IMS desk linked to Output 5:

- National/international experts set up database using an IMS working group.
- Develop IMS strategic plan and oversee its implementation.
- Organize two (interim and final) workshops for national/regional stakeholders.
- In addition, hold two networking events in each country.
- Deploy for regional benefits websites/newsletters and systems for internal and external dissemination of POPs related information mainly on contaminated land/sites.

Public Awareness/Education Desk linked with all outputs

This is closely linked to IMS desk

- Keep the public, relevant NGOs, industries on issues related to POPs contamination.
- With national/international experts develop social/environmental indicators to assist in risk awareness/assessment/management methodology and use it for taking action on potential hot spots and identified POPs contaminated sites.

The NCU along with the RCU will do the M&E of normal implementation of the project and render all the necessary assistance during the mid-term and final evaluation of the project.

International experts to support the project:

During the implementation of the project, UNIDO through a subcontract with the Geoenvironmental Research Centre, Cardiff and from other sources will assign the following international experts. They will work closely with the CTA, RCU, NCUs and the Project Steering Committee.

Expert on legal and policy issues	2m/m including 2 visits to the region
Institutional Capacity Building	4m/m including around 4 visits to the region
Remediation technology	4m/m including around 4 visits to the region
Risk identification /assessment/ Management/hazard ranking	4m/m including around 4 visits to the region

Socio economic impact assessment / indicator development/monitoring	4m/m including around 2 visits to the region
IMS	3m/m including 3 visits to the region
Total	21m/m including 19 visits (each visit 8-10 days duration)

Training:

Trainees to be trained	No. of trainees	Total duration	Place
Running of National GRC	2	2 x 2 m/m	GRC, Cardiff, UK
Managing contaminated Sites	4	4 x 2 m/m	GRC, Cardiff, UK
Technology development	4	4 x 3 m/m	GRC, Cardiff, UK
Hazard analysis	4	4 x 1 m/m	GRC, Cardiff, UK
Toolkit preparation	2	2 x 1 m/m	GRC, Cardiff, UK
IMS	2	2 x 1 m/m	GRC, Cardiff, UK
TOTAL*	18	32 m/m	

* This is based on the full project budget of \$4,100,000. If full co-financing is not forthcoming, the m/m and visits will be reduced accordingly.

Short-term trainings*:

Field	No. of persons	Duration
Managing brown field sites	6-10	2 visits of less than 2 weeks
Policy issues/implementation		
Public/private partnership in land development		
IMS		

***Visits and size of the team depend on getting full co-financing**

Draft Terms of Reference for the Regional Coordination Unit (RCU)

1. Introduction

Based on the approval of the above project, UNIDO in accordance with the recommendations of the Project Steering Committee will be setting up various units and committees to oversee and facilitate the implementation of the regional project. Such implementation will follow an agreed work plan to provide the necessary inputs in order to reach the 6 outputs envisaged in the project. The key unit is the Regional Coordinator Unit hereafter referred to as "RCU". In the last PSC meeting held during 8-10 November 2006 at the Geoenvironmental Research Centre (GRC), Cardiff, it was agreed to set up the main RCU in Abuja at the Regional Industrial Development Office (RIDO) of UNIDO. The main advantage of such an arrangement would enable a good communication among all parties and stakeholders involved and the UNIDO Hqs. and better monitoring and evaluation of the progress of the project. The RCU will be the core unit of the project as shown in the organizational arrangement of the proposed full-sized project.

2. Terms of Reference of the RCU

Staff of the RCU

The RCU will occupy the important position in coordination of the project among the various stakeholders in the region, project counterparts, the UNIDO Hqs., the technical partner (GRC) in Cardiff, the Chief Technical Advisor so that all activities are implemented based on the agreed work plan. A Regional Coordinator (RC) will lead the RCU on a part time basis. He/she will be assisted by a part time secretary and a part time programme officer. The office will be equipped with basic office equipment and the staff will be trained, as needed in project coordination and implementation formalities. The RCU will have a sub-unit located at the UNIDO office in Lagos, Nigeria and the UNIDO office in Accra, Ghana. In both Ghana and Nigeria, the RCU will function under the supervision and support of the respective UNIDO Country Representatives.

Functioning of the RCU

The Regional Coordinator, in consultation with UNIDO Programme Manager, the CTA of the project, the UNIDO Country Representatives and senior project counterparts will use the office to coordinate all activities to implement the project in order to achieve the 6 intended outputs. The RCU will be provided with regional experts on an *ad hoc* basis for necessary assistance. This would involve getting nomination forms of trainees, fellows going on short-term training and getting CVs of national experts and providing assistance obtaining visas, local transports and travel estimates.

3. Coordination required by the RCU for various outputs

Output 1: A suitable organization arrangement set up for timely and well-monitored implementation of the project

In order to achieve the necessary project coordination, the RCU will assist in the formation of a Regional Ministerial Committee (RMC) and a Regional Steering committee. In this, it will provide necessary advise to the project counterpart organization regarding the constitution of the above mentioned Committees and provide the terms of reference for these Committees in consultation with UNIDO and the CTA. In addition, the RCU will oversee the formation of the National Coordination Units with required staff and national consultants with necessary equipment. The staff of the RCU will be given necessary training in skill share workshops to facilitate project coordination/implementation and monitoring. It will maintain all office bookkeeping of correspondence, administrative matters and reports of meetings and experts. The RCU will arrange the first inception workshop soon after the start if the implementation of the project.

Output 2: Establishment of regional policy and national legal frameworks for the management of contaminated sites

This output is an important indicator for sustainability and replicability of the project. The implementation will start early and completed before the completion of other outputs. In this the RCU will interact closely with the Policy Desk in the NCUs. It will facilitate interaction of national and international policy consultants to draft the policy/legal framework for management of POPs contaminated sites in the region. The RCU will keep the RMC and RSC informed regarding the policy developments and will facilitate speedy adoption of the drafted policy for enactment and necessary action being taken to enforce the law/legal framework. In consultation with UNIDO HQs. and the CTA, the RCU will arrange coordination mechanism for organizing relevant workshops making sure that all stakeholders are kept informed.

Outputs 3 and 4: National and Regional Capacity Building and Institutional Strengthening and Toolkit for the selection of environmentally sound and economically feasible remediation technologies for Ghana and Nigeria

These two outputs are the mainstay of the project in developing national and regional capacity for systematic identification and technically managing POPs contaminated sites and developing appropriate technology in line with BAT/BEP. In this, the RCU will facilitate all the coordination required between the participating institutions in Ghana and Nigeria and the technical partner institution GRC, Cardiff directly and or through UNIDO. The two Geoenvironmental Centres to be established in Ghana and Nigeria need to be monitored in terms of proper staffing, equipment and functioning with the assistance of national and international experts. The RCU will provide the necessary coordination to organize work shops, expert group meetings and short-term trainings.

Output 5: Establishment of environmental IMS and framework for stakeholders engagement and public educational and awareness Programme

This output is very important in terms of creating public awareness and education to maintain transparency so that the experience gained could be replicated in the region. The RCU will provide all the assistance to run Information Management System dealing with POPs contaminated sites. The output involves establishing websites, newsletters and a robust database. The RCU will provide the necessary assistance to involve relevant NGOs in the region.

Output 6: Regional Monitoring and Evaluation Plan

The role of the RCU is very important in coordinating experts in developing indicators and participates in the normal M&E of project implementation. It will play an important role in assisting the UNIDO/GEF mid-term and final evaluation of the project. The RCU will provide all the logistics, information, organizing meetings in the region and provide all the reports and minutes of the meetings.

4. Reports:

The RCU apart from the book keeping of files, administrative reports, expert reports, etc. will prepare reports of the RMC and RSC meetings. The RCU will also make sure that the NCUs get the reports from national experts and copies of these reports are kept in the RCU.

Draft Terms of Reference for Subcontract on the “Provision of Soil Remediation and Information Technologies for capacity building for environmentally sustainable management of POPs contaminated sites in Ghana and Nigeria”

General Background and Aim of the Project

1. Introduction:

Over the last 60-70 years, the chemical industries both in developed and developing countries have used thousands of chemicals and their innumerable intermediates and formulations for various outlets. These chemicals did vastly improve the standard of living and saved millions and millions of lives from hunger and diseases. However, some selective toxic and persistent organic chemical pollutants did remain in the environment for long periods of time. They not only migrated from one environmental matrix to another carried by air and water currents, and being lipid soluble, but also tended to enter the higher food chain and bioaccumulate in the fatty tissues of humans and animals. Following a number of consultation meetings with international experts lasting over a decade, the international community identified 12 chemicals called “the dirty dozen” and agreed that the human health and environment should be protected from these 12 persistent organic pollutants or the so-called POPs. They consisted of eight pesticides, two industrial chemicals and two highly toxic by-products called unintentionally produced POPs (UPOPs). In May 2001, more than 120 countries signed a historical treaty in Stockholm called the Stockholm Convention to protect human health and environment from these POPs. The Convention with 30 articles became legally binding during May 2004, when a 50th country ratified the convention document. To help developing countries and countries with economy in transition, which signed and ratified the Convention, the Global Environment Facility (GEF) worked out a financing mechanism for capacity building in the form of enabling activities in dealing with POPs implicated in the Stockholm Convention. UNIDO as one of the Executing Agencies with Expanded Opportunities has been helping more than 40 countries including Ghana and Nigeria in their enabling activities to prepare their National implementation Plans (NIPs).

2. NIP of Ghana and Nigeria

Under the NIP, the countries are obliged to prepare among other activities, a database covering:

- Inventory of Production
- Inventory of use
- Inventory of import/export
- Inventory of stockpiles
- Inventory of sources
- Inventory of polluted sites

During the enabling activities, countries such as Ghana and Nigeria realized the importance of problems posed by POPs contaminated sites and the problems of identifying the sites and the level of contamination. In line with Section 1e of Article 6 of the Stockholm Convention on POPs, which states: “*endeavour to develop appropriate strategies for identifying sites contaminated by chemicals listed in Annexes AB and /or C, if remediation of those sites is undertaken, it should be done in an environmentally sound manner*”, Ghana and Nigeria prioritised the POPs contaminated sites as one of the major issues.

3. PDF B Regional Project:

Ghana and Nigeria in a joint approach applied through UNIDO for GEF funding under the PDF-B to prepare a regional programme to develop capacity building in systematic identification of POPs contaminated sites, carry out risk assessment/prioritization and select and develop appropriate technologies for remediation and carry out remediation, if required in accordance with BAT and BEP. The PDF-B project was approved in July 2005. During the implementation of the PDF-B, the Geoenvironmental Research Centre (GRC) located at Cardiff University, UK was identified as a technical partner in dealing with POPs contaminated sites. With its vast experience in dealing with brown field sites remediation in Wales, UK under a private/public partnership and in doing R&D in land remediation and also with fully experienced staff and experimental facilities unique in Europe, GRC agreed to participate as a technical partner in the project. The above-mentioned PDF-B project

was implemented with the full participation of the Federal Ministry of Environment, Nigeria, the Environmental Protection Agency (EPA) of Ghana Ministry of Environment and several national and international experts along with the technical experts of GRC, Cardiff. During September 2005-May 2006, consultations of all relevant stakeholders in Ghana and Nigeria took place and the full Project Brief was prepared and submitted to GEF for approval. The project after going through a GEF review mechanism was cleared in August 2006. The project will be unique in the sense that it will be the first major project under the Stockholm Convention executed by UNIDO and funded by GEF and other partners to develop capacity in Ghana and Nigeria on environmentally sustainable management of POPs contaminated land /soil.

The overall objective of the project is to build capacity and strengthen institutional arrangement and develop appropriate strategies for identifying sites contaminated by chemicals listed in annexes A, B and/or C of the Stockholm Convention on POPs. The project will also assess the viability of environmentally sound and low-cost remediation technologies. Results of these experimental project experiences will be extended to other countries in the region,

The immediate objectives of the project are:

- the development of policy and legal frameworks for management of contaminated lands/sites; and
- the strengthening of institutional capacity for mitigation of land contamination and sustainable land management, potential hotspots identified and prioritised for pilot testing of appropriate low-cost environmentally sound technologies, if remediation is required.

The immediate objectives are to be achieved through six major outputs as follows:

Output 1	A suitable organization arrangement set up for timely and well monitored implementation of the project
Output 2	Establishment of Regional policy and national legal frameworks for the management of contaminated sites
Output 3	National and Regional capacity building and institutional strengthening
Output 4	Toolkit for the selection of environmentally sound and economically feasible remediation technologies for Ghana and Nigeria
Output 5	Establishment of environmental IMS and framework for stakeholders engagement and public education and awareness programme
Output 6	Regional Monitoring and Evaluation Plan

In order to allow the Geoenvironmental Research Centre (GRC), Cardiff, UK to participate in the full project, a subcontract arrangement is proposed as follows:

4. Subcontract Arrangement

Scope of the Terms of Reference for the subcontract:

The Geoenvironmental Research Centre (GRC), Cardiff, UK, in collaboration and consultation with the UNIDO Project Manager, the Chief Technical Advisor (CTA) and all the project counterparts is expected to fully participate in the various activities envisaged in the full project to achieve the above-mentioned outputs. The major inputs expected from the GRC, Cardiff, UK as subcontractor will contribute heavily to Outputs 3, 4 and 5 while actively participating in Outputs 1, 2 and 6, as needed. The Terms of Reference (ToR) of the subcontract sets out the responsibilities of the subcontractor to provide specific inputs to build Regional capacity in Ghana and Nigeria to systematically identify, investigate sites/land contaminated with POPs implicated in the Stockholm Convention including other xenobiotics with similar properties covered in other international agreements. The countries should develop capacity to carry out risk assessment/management to rank and prioritize action to deal with potential hotspots in the participating countries. With the assistance of the subcontractor, the project is expected to design and develop a robust toolkit for the selection of environmentally sound and economically feasible remediation technologies in accordance with BAT/BEP.

Subcontractor's Inputs

Under the ToR, the subcontractor will make its technical staff and facilities available for the project especially for the above mentioned Outputs 3, 4 and 5 and some of the M&E outputs. One of the key elements, among others, is the establishment of two well-staffed and equipped Geoenvironmental Centres within the existing institutions in Ghana and Nigeria. The local staff will be trained by GRC staff both in Cardiff, UK and in their own countries so that in the long run they can become self standing and sustainable institutions.

Under the ToR, it is expected that the subcontractor will provide necessary experts for adequate time to work in the project, which is expected to last for four years. Expertises required are in the areas of:

- Institutional capacity building including development of private/public partnership
- Risk assessment/risk management of contaminated sites
- Soil analysis for POPs contamination
- Suitable land remediation technology development in accordance with BAT/BEP
- Information Management system
- Socio- economic impact indicators and monitoring
- Public education /awareness

In all these areas including policy /legal framework, the subcontractor's experts will be assisted by national experts from Ghana and Nigeria, selected international experts and the CTA. The project implementation will follow the tentative work plan agreed in the 3rd Project Steering Committee meeting. The toolkit to be prepared will be done jointly with all the relevant national/international experts (see Appendix 1 for contents of the toolkit).

The subcontractor, in line with the activities and outputs of the project and in consultation with UNIDO and the project counterparts will organize and host workshops/training sessions (individual and groups)/expert group meetings, etc. as well as in the field and actively participate in them.

Expert Requirements:

In order to technically contribute to the activities for Outputs 3,4 and 5, the following experts are to be made available to the project by the GRC, Cardiff, UK and these experts will be working with UNIDO Project Manager/CTA and national and other international experts:

Field of specialization	Qualification	Experience	Period required/place
Institutional capacity building in managing contaminated sites especially of POPS contaminated sites	Civil Engineer or an environmentalist or industrialist	Long standing experience dealing with industrial contaminated land and in restoration of sites with public/private partnership	4-6 m/m during the period of the subcontract, Mainly in home based with 4-6 visits to the field as required.
Remediation technology development/soil analysis/R&D on soil remediation	Civil engineer/ Chemical engineer or environmentalist	Long standing experience in soil remediation, model/pilot scale remediation techniques. Experience in soil analysis preferable	4-6 m/m during the period of the subcontract, Mainly in home based with 4-6 visits to the field as required.
Risk identification/ Assessment/management/ hazard ranking	Chemist / Chemical engineer/ Environmentalist/ safety specialist	Long standing experience in hazardous assessment/hazard ranking of toxic/hazardous activities including contaminated land	4-6 m/m during the period of the subcontract with a minimum of 2 visits to the field.
Socio economic impact assessment /indicator development and monitoring	Sociologist/ economist or environmentalist	Long standing experience in socio economic aspects/ public education	4 m/m during the period of subcontract with a minimum off 2 visits to the field.
Information Management System	IT specialist and data collection management	Long standing experience in data management, networking and public awareness exercise	3-4 m/m during the period of subcontract with 3 visits to the field.

* m/m given is based on estimation. Minor adjustment could be applied by discussion with UNIDO and RCU

Training of the trainer:

This is a very important activity in the saga of regional capacity building to identify, manage, mitigate and remediate POPS contaminated sites. During the implementation of the project, the subcontractor will provide training of senior personnel from Ghana and Nigeria on areas related to capacity building in identification, hazard ranking, soil analysis, carrying out experiments to develop suitable technologies for soil remediation, IMS, public education and awareness. Most of these trainings will be done mainly in Cardiff, UK and some in the field. UNIDO, the subcontractor and the national counterparts will select suitable persons who could become future trainers in their field of expertise. The training will be done either on an individual basis or in groups. Under the subcontract, the GRC will cover the cost of training, local arrangements (accommodation, issuing letters for visas, visiting sites or institutions) while the cost of travel and daily subsistence allowance will be provided by the project.

The estimated number and training period is given below:

Field	Numbers	Duration*	Location
Establishing and running GRC under the context of Ghana and Nigeria	4 (two from Ghana and two from Nigeria)	1m/m	GRC, Cardiff with field visits as needed.
Contaminated site identification/sampling/analysis and reporting	4 (two from Ghana and two from Nigeria)	3m/m	GRC, Cardiff and other laboratories as needed
Pilot scale experiments on soil remediation/selection of appropriate technology/BAT/BEP	4 (two from Ghana and two from Nigeria)	4m/m	GRC, Cardiff and other places as needed
Hazard identification/assessment/ranking/prioritization	4 (two from Ghana and two from Nigeria)	2m/m	GRC, Cardiff
Tool kit preparation	One each from Ghana and Nigeria	1m/m	GRC, Cardiff
Information management system	One each from Ghana and Nigeria	1m/m	GRC Cardiff and visit to relevant institutions

* m/m are based on estimation. Minor adjustments could be made in consultation with UNIDO and the RCU

Trainings:

It is important that senior level people including decision makers from the Government, NGOs, participating institutions make a short-term training in the UK to look into the mode of operation of managing contaminated lands, policy / legal framework issues related to contaminated lands, working of public/private partnership in development, functioning of GRC, Cardiff and information management systems. It is expected that the training could consist of 5-8 persons for a period of 15 days. GRC will organize and arrange the training as needed based on discussion with CTA and the field office within the framework of the subcontract and UNIDO will provide travel costs and daily subsistence allowance of the trainees through the project.

Establishment of Geoenvironmental Centres (GC) in Ghana and Nigeria:

GRC, Cardiff in consultation with the CTA and national counterparts will provide advice and planning in the design, staff requirements, equipment needed in setting up the GC in Ghana and Nigeria. They will also propose, organize and participate in carrying out remediation experiments in GRC, Cardiff and in the field. Sustainability of the project depends very much on continuous operation of the local GCs during the project and also beyond the lifetime of the project. The establishment and functioning

of the GC in Ghana and Nigeria will make the necessary contribution to the setting up of the IMS and the preparation of the toolkit.

Information Management System /Public Awareness/education:

These are important part of capacity and knowledge building of stakeholders and the public and provide replicability and transparency to the project. The GRC, Cardiff experts and the counterparts will interact closely to set up a robust database and data management system related to POPs contaminated sites. In the long-term, local groups will operate the database to create public awareness transparency while identifying and managing POPs contaminated sites.

The toolkit:

This is one of the prime outputs of the project. It will be unique in the sense that it will be used as UNIDO reference document for training on dealing with systematic identification of POPs contaminated sites, appropriate technology selection and development. In the long run, the toolkit will be used not only in the region but also globally by UN and other organizations. The contents and design of the toolkit will be developed with GRC experts and other international and regional experts. The basic content of the toolkit is given in Appendix 3 but could be modified as needed.

Monitoring and Evaluation:

Apart from the regular GEF/UNIDO evaluation, the GRC with UNIDO and the field office (RCU) will set up indicators and milestones to follow the timely progress and achievement of the project. The GRC with RCU's and UNIDO's help will organize the yearly Project Steering Committee meetings to discuss the results achieved.

Reports:

As part of the subcontract, the GRC will submit detailed annual reports on the progress of the project, work carried out by their staff with findings and recommendations. The subcontractor will also cooperate and contribute to the UNIDO/GEF mid-term and final evaluation exercises and reports.

Payment schedule:

First Payment:, upon signature of the contract	20%
Second Payment, upon submission/clearance of the first report	30%
Third Payment, after mid-term evaluation report	20%
Fourth payment, after submission of third report and draft tool kit	20%
Final Payment, after Final Evaluation Report, submission and clearance of final report	10%

Appendix 1: Toolkit Contents (to be reviewed)

Title: Guidance Document for systematic identification of POPs Contaminated Sites and application of appropriate technology development based on BAT/BEP and application for remediation of POPs contaminated sites.

Contents (proposed)

1. Introduction
2. Contaminate Land/Sites
1. Definition of POPs Contaminated land/sites
2. Studies needed to identify potential contaminated sites
3. Investigation of potential sites
4. Hazard identification/assessment/hazard ranking
5. Selection of appropriate technology based on BAT/BEP
6. Carrying out model experiments
7. Decision making process
8. Public awareness/education
9. Costing of application selected technology
10. Funding requirements
11. Carrying out remediation including prevention of contamination and monitoring process

ANNEX 6: RESULTS OF PDF-B IMPLEMENTATION

Implementation of PDF-B project GF/RAF/005/001

The PDF-B project was approved in June 2005 and implementation started in September 2005 with the appointment of Chief Technical Advisor (CTA) and a Project Steering Committee (PSC). The first meeting of the PSC took place in Cardiff University, Wales, UK during September 2005. The method of implementation, organizational chart, workplan with responsibilities were agreed. Following this, national and international consultants as well as an institution with long-standing experience in the UK on land reclamation, the GRC, Cardiff, UK were assigned to provide the necessary technical inputs in association with the UNIDO Project Manager and CTA in order to achieve the outputs of the PDF-B project. A one-week discussion seminar to benefit senior project counterparts in Ghana and Nigeria was organized, which dealt at length the policy/legal framework, enforcement, technology of land remediation, risk assessment/management, practical aspects and benefits of private-public partnership in contaminated land reclamation. Following the discussion seminar, the CTA visited Nigeria and Ghana to prepare the groundwork for the planned visit of the GRC experts to the field in 2006. The CTA metamorphoses all the national project counterparts, visited some of the potential hot spots and laboratories in Ghana and Nigeria.

The GRC mission consisting of policy/legal expert, capacity building institution strengthening specialist, contaminated land remediation technology and IMS specialist visited Ghana and Nigeria during January to February 2006, participated in two one-day seminars on Policy/Legal framework and one workshop on appropriate technology selection for land reclamation. Relevant ministries, bilateral/multilateral donor agencies, industry representatives, NGOs, press, etc. attended both the seminars. Following the seminars, UNIDO visited many international agencies to discuss the project and seek cooperation.

The draft Project Brief was prepared and the second PSC was organized in Cardiff from 27 February to 2 March 2006 to finalise the Project Brief. The Project Brief has been submitted to GEF for approval and received clearance in August 2006. Minutes of the three (3) PSC meetings are attached as Appendix 1 to Annex 6.

**Appendix 1: REPORT ON THE 1ST PROJECT STEERING COMMITTEE MEETING
Cardiff University, Wales, United Kingdom
28 to 29 September 2005**

1. Participants:

1.1. Geoenvironmental Research Centre (GRC), Cardiff University, Wales, U.K.

Professor Hywel.R. Thomas, Director, GRC and Professor of Geotechnical Engineering
Dr. Peter J. Cleall, Lecturer
Dr. Rob W. Francis, Project Manager
Dr. David Huw Owen, Department Manager
Dr. Aleksandra Koj, Senior Research Associate
Dr. Talieb Mahdi, Senior Research Associate
Dr. Suresh C. Seetharam, Research Associate
Ms. Pauline Townsend, Administrative Assistant (Part time)
Prof. Keith Williams, Division of Materials and Minerals (during laboratory visit)
Mr. Ravi Metha, Chief, Analytical laboratory (during laboratory visit)
Mr. Devin Sapsford, Research Associate (during laboratory visit)

1.2. Counterpart Institutions:

Prof. E. O. Nsenkyire, Chief Director, Ministry of Environment and Science, Accra, Ghana
Prof. O.A. Afolabi, Director, Department of Pollution Control and Environmental Health, Abuja, Nigeria

1.3. UNIDO:

Dr. Mohamed Eisa, Chief, POPs Unit, Multilateral Environmental Agreement Branch
Dr. B. Sugavanam, Chief Technical Advisor, UNIDO Consultant

2. Introduction:

Following the approval of the above project by GEF under its PDF-B scheme, the implementation of the project started with the establishment of a Regional Steering Committee (RSC) and appointment of a Chief Technical Advisor. In order to:

- bring an understanding of this very first GEF approved project on POPs contaminated sites;
- establish a linkage and coordination between the various present and future participants of the project and the ongoing Enabling Activities projects in Ghana and Nigeria for developing the National Implementation Plan (NIP) for POPs;
- agree on a workplan, role and responsibilities to meet the very tight time schedule for implementing the project; and
- come up with a full project brief for submission to the GEF Council.

The above RSC meeting was organized at the Geoenvironmental Research Centre (GRC) of Cardiff University.

3. Minutes of the meeting:

3.1. Presentation by the GRC

Dr. Mohamed Eisa chaired the meeting and introduced the participants and after opening remarks by Dr. Eisa and Professor Thomas, the meeting adopted the agenda. Prof. Thomas gave a detailed presentation of the activities of the GRC. He said that the GRC was the first centre in the field of Geoenvironmental Engineering in Europe. The major objective of GRC was to bring about a close partnership and collaboration between industry and the GRC and find answers to practical problems and not operate in an academic isolation. Many of their research projects in the GRC are industry driven and thereby helping the economy/environment of the region and the society at large. Their areas of interests include, among others, developing risk identification/ assessment tools, collaboration with organizations under a European networking system, chemical movement in

water/soil matrices and study socio-economic impact of contaminated areas. He described various courses run by the GRC, covering MSc in Geoenvironmental Engineering, industrial training, advanced research leading to Ph.D. and post doctoral work in industry related problems, short and full academic courses, geoenvironmental monitoring, sustainable management of farm wastes, etc. He said that in Wales there are a number of lagoons created by steel works, and the sludge in these lagoons are being investigated for taking further action. They are also looking into arsenic pollution of ground water in Bangladesh, West Bengal *insitu* remediation of contaminated lands including POPs contamination. He specially mentioned about a project in Kuwait related to oil pollution that resulted from the 1990 Iran-Iraq war. They are already collaborating with the International Atomic Energy Agency (IAEA) in conducting training courses related to nuclear waste issues. They have many projects dealing with SMEs in the region.

Based on their work and help to the industry, they have assisted 151 companies and helped to create six new companies. Special mention was made to their project called RESCUE (Regeneration of European Sites in Cities and Urban Environment). A manual entitled *Best Practice Guidance for Sustainable Brownfield Regeneration* has been prepared under this programme. They have also identified and developed sustainability indicators and apparently their Geoenvironment Networking has been very successful. Another programme they have just embarked on is called *Sustainable Urban Environment (SUE)* where they map the flow and model the fate and transport of pollutants. He mentioned about different types of training courses they could do for degree courses or for a short-term dealing with specific topics in the areas of land contamination. The GRC is also giving greater attention to the study of socio-economic impact of contaminated sites. A hard copy of the presentation and a CD were provided to the participants.

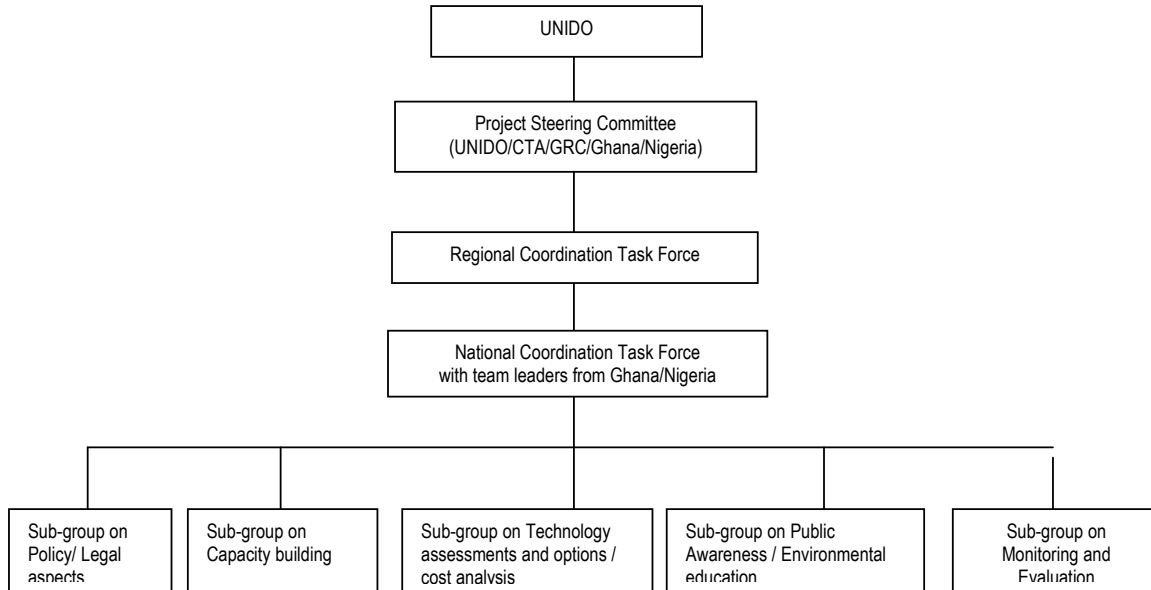
The Chairman thanked Prof. Thomas for his presentation and highlighted some of the activities and expertise that would benefit UNIDO projects in developing countries. Prof. Edward Osei Nsenkyire congratulated Prof. Thomas for his excellent presentation and based on the expertise, coverage of activities, laboratory facilities and the wealth of experience available at GRC he said that it would be very helpful for the implementation of the project. On a broader perspective he said that Ghana would be interested in pursuit of sustainable development. He specially mentioned about distance learning, rehabilitation of lagoons, land regeneration of mined sites, landfill engineering and sustainable urban environment. He added that areas such as capacity building, bioremediation of POPs contaminated sites, models of soil behaviour and ground water problems are of great importance.

He would be keen on Universities working closely with the GRC through exchange of relevant staff and students. He specifically mentioned about the Graduate School of Environmental Science at Knust and the School of Nuclear and Applied Sciences at the University of Ghana. He concluded that the projects under the Multilateral Environment Agreements (MEAs) to which Ghana is a signatory or has ratified could be taken up for future collaboration.

Prof. O.A. Afolabi, said that he was very much excited about the breadth and depth of activities and expertise at the GRC and would like to have a long-term relationship between Nigeria/Nigerian institutions and the GRC. In a broad sense he would be willing to collaborate on issues of capacity building and institutional strengthening, broad range of areas of environmental management and POPs related issues. Other areas could be the Decision Support System software, modelling, twinning of Nigerian universities (e.g. Open University) and other institutions with GRC. The idea to commence the process of developing an African Centre for Environmental Strategy was mentioned and wanted a possibility of facilitation of this process by UNIDO and the GRC could be explored.

3.2. Presentation by UNIDO

The Chairman explained the functioning of GEF and circumstances leading to the approval of the project on POPs contaminated sites. He explained the CTA's role in the project and the tight time schedule for completion of the project activities. Following this, the CTA presented an introduction to the development of the chemical industries, in general, the role of chlorine and the historical development of various Conventions and global milestones leading to Environmentally Sustainable Manufacture. He gave detailed account of the project, the various segments dealing with objectives, outcomes, activities and outputs. The prepared draft tentative work plan was discussed step by step and a modified work plan was agreed. The institutional arrangements for the implementation of the project was discussed and agreed by the Regional Steering Committee:



The Chairman informed that the GRC participation could be through a Memorandum of Understanding (MoU). He added that the GRC in collaboration with the CTA could contribute to technology options, capacity building, policies, economic and financial issues, social aspects, development of indicators and IMS.

3.3. Laboratory visit

A tour of the laboratories was arranged where among other things, experiments on sludge from steel manufacturing company lagoons, model experiments on the trafficking of waste based manufactured soils reinforced with waste plastic fibres, to be used in grass covered areas subjected to vehicular traffic were being carried out. The laboratory tours included a visit to new analytical laboratories, 3D Visualization theatre for a better view of sections of materials and structures, instruments for interpretation, trouble shooting and solving problems were being carried out. The visitors were informed that soon they would be doing analysis for dioxins/furans/PCBs in selected industrial wastes. The visit gave a good understanding of the type of facilities available for future cooperation in managing contaminated land in an environmentally sound manner.

4. Detailed discussion of the workplan

The meeting continued after the laboratory visit. The Chairman summarized the time schedule for the programme including the follow up phase as:

- | | | |
|---|------------------------|--|
| • | September 2005 | Kick off meeting |
| • | March 2006 | Full Project Brief for submission to GEF |
| • | June 2006 | Comments from GEF/ Final project Document /Approval of Project |
| • | Completion of project: | Two years after approval |

Based on the workplan, Prof. Thomas presented the activities on a monthly basis. To facilitate taking action and implementation, Prof. Afolabi suggested keeping it as a working document along with the agreed workplan.

Finally the meeting discussed the immediate task of the implementation arrangements for carrying out activities and delivering various outputs according to a tight schedule agreed in the workplan. The Chairman wanted GRC to provide the following consultancies:

- Capacity building 2.0 w/m over 4 months
- IMS (Information Management System) 1.0 w/m over 3 months
- Technology Assessment/options 2.0 w/m over 4 months
- Policy /legal frame work 1.0 w/m over 3 months
- Monitoring and Evaluation 1.0 w/m over 3 months

The Chairman said that all the 2.0 w/m assignments will include two missions of two weeks each to the field and 1.0 w/m assignments will include one mission of two weeks duration. In all the above fields, senior national experts will be working for 2.0 w/m over a period of 4 months. The GRC and the participating countries will provide CVs of candidates and job descriptions will be prepared by the CTA. The Chairman informed that the project would cover the salary, travel and daily subsistence allowances of GRC consultants. He added that reasonable expenses incurred during the training courses at the GRC could also be covered.

Prof. Afolabi suggested that in order to have an effective and smooth implementation of the project, there should be a one-week interactive seminar early on between the senior national consultants and the GRC consultants in Cardiff. This was agreed and the seminar was suggested during end October 2005 and the first field mission of the GRC consultants will take place during the second or third week of November 2005 to work with the same national consultants. Such a discussion seminar will cover the following:

- | | |
|-------|---|
| Day 1 | General introduction /Wales Development Agency/Environmental Agency |
| Day 2 | Economic aspects /Technical Solutions |
| Day 3 | Social aspects |
| Day 4 | Net working/LRN (Land Regeneration Network) |
| Day 5 | Risk Assessment |

It was agreed to have the next meeting of the Regional Steering Committee during the end of February 2006 in Cardiff. (see Annex 5 for Report on Discussion Seminar)

5. Conclusion

The meeting came to a conclusion after closing remarks by the Chairman and Prof. Thomas of GRC.

REPORT ON THE 2ND PROJECT STEERING COMMITTEE MEETING
Cardiff University, Wales, United Kingdom
1st to 2nd March 2006

1. Participants

Geoenvironmental Centre (GRC):

Prof. H. Thomas, Director
Dr. Rob W. Francis, Project Manager
Dr. David –Huw Owen, Development Manager
Dr. Talib Mahdi, Senior Research Associate
Dr. Rob Sleet, Representing GRC from Envirogene, Cardiff
Dr. Aleksandra Koj, Research Associate

Ghana/Nigeria

Prof. Johnathan A. Allotey, Executive Director, EPA, Ghana, (National Project Coordinator)
Prof. O. A. Afolabi, Director, Department of Pollution Control and Environment Health, Federal Ministry of Environment (National Project Coordinator)

UNIDO

Dr. Mohamed Eisa, Project Manager, UNIDO, Vienna
Mr. Adegboyega O. Ajani, Regional Coordinator, UNIDO Office, Abuja
Dr. B. Sugavanam, CTA

2. Agenda

The meeting was chaired by Dr. Eisa and adopted the following Agenda:

Wednesday, 1st March 2006

13:30 – 13:45	Introductory Remarks by Prof. Thomas and Dr. Eisa
13:45 – 14:45	Progress since the 1 st Project Steering Committee meeting by the CTA
14:45 – 16:00	Discussion on the Project Brief
16:00 – 17:00	Gaps in the Project Brief (co-financing, cost-sharing, selection of laboratories Training in actual m/m and number of senior trainees to be trained abroad Linkages to other programmes by CTA/GRC/Project Coordinators/Dr. Eisa)

Thursday, 2nd March 2006

10:00-10:30	Further discussions on Project Brief
10:30 – 10:45	Timeframe for GEF submission and follow-up to full project leading to approval (Dr. Eisa)
10:45 – 12:20	Strategy to approach donors, expansion of programmes to cover other countries
12:20 – 13:15	Recommendations and follow-up
13:15 – 13:30	AOB and closing of the session

3. Proceedings of the Meeting

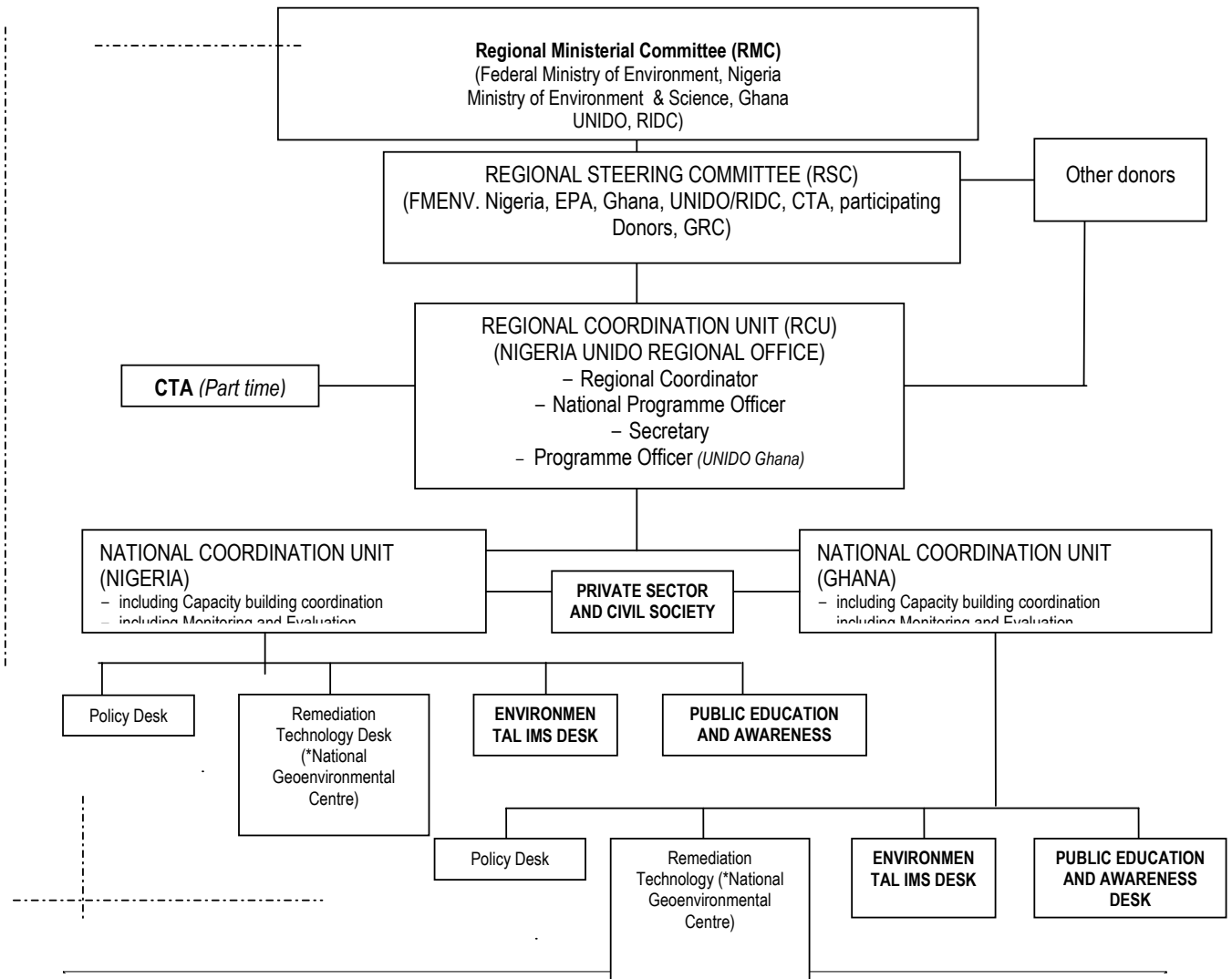
After the initial introductory remarks, the CTA presented the progress of the project since the 1st Project Steering Committee Meeting held in September 2005. He gave a summary of various activities carried out according to the agreed work plan in the 1st PSC meeting. He gave a brief account of the Cardiff Discussion Seminar (see Annex 5) held in November 2005, the CTA mission in December 2005 and January-February 2006 and the GRC field mission in January-February 2006. During these missions, detailed discussions took place with national experts, various ministries, industries and visits to the laboratories in Lagos and Accra. Based on the findings and discussions, the team jointly prepared the project brief covering different areas. During the mission,

two one-day seminars were organized in Abuja on Technology Option and another in Accra on Policy and Legal Framework. National experts further discussed the draft Project Brief in detail during a meeting in Ibadan, Nigeria from 13-16 February 2006. Multidisciplinary audience from ministries, civil society and universities attended the one-day seminars mentioned above. During the field visits, many potential donors were consulted regarding their work and possible support and linkages to their programmes. The CTA also mentioned that in the Ibadan meeting, it has been agreed to present two project brief versions: one with a budget of US\$ 4.0 million and another for US\$ 6.0 million.

Following the CTA's presentation, the Chairman suggested that the meeting should take up the US\$ 4.0 million project proposal. He said that the GEF funding of possible US\$ 2.0 million should be matched at a minimum ratio of 1 to 1. The meeting went through the draft proposal paragraph-by-paragraph and agreed on all the suggested modification. The organizational structure for the implementation of the project was discussed in detail and it was agreed that the Regional Industrial Development Office in Abuja would accommodate the Regional Project Coordinator unit. The UNIDO offices in Accra and Abuja will have a project office to assist the RPCU office. The meeting was informed about the strong interest shown by the NGOs, industries and also some of the donors met during the mission. Ghana and Nigeria informed about the availability of supporting letters from the Governments. The organizational arrangement given in Fig.1 was agreed.

The CTA agreed to prepare the Project Executive Summary. The Chairman explained the time schedule followed by GEF to consider project briefs, the procedure for submitting comments and follow-up for the full project preparation. He informed that 24 March 2006 is the final date of project brief submission and by a series of comments and suggestions from GEF and other agencies within two weeks. Based on this, UNIDO will resubmit the proposal for inclusion and consideration by GEF Council by first week of June 2006. By end of June 2006, the approval status of the project will be known. During this period, it was agreed that UNIDO along with other parties will follow a set procedure to meet potential donors for financial support and GRC will also look into the possibility of their contribution mainly in kind to the project. The meeting came to a close after a vote of thanks.

Figure 1: Proposed Organizational Chart for the implementation of the Regional Project



*** Note:** The Centre will not be a stand-alone institution. It will be established within existing institutions in order to be cost effective and sustainable in the long-term.

REPORT ON THE 3rd PROJECT STEERING COMMITTEE MEETING
Cardiff University, Wales, United Kingdom
7-9 November 2006

1. PARTICIPANTS:

GEO-ENVIRONMENTAL RESEARCH CENTRE (GRC)

Prof. H. Thomas, Director,
Prof. M. Loxham
Dr. Rob Francis
Dr. Talib Mahdi
Dr. (Ms) Alexandria Koj

Ghana/Nigeria

Mr. John Pwamang, Director, Chemicals, EPA Ghana (representing National Project Coordinator)
Dr. O.O. Dada, Deputy Director, Dept. of Pollution Control, Federal Ministry of Environment, Nigeria
(representing National Project Coordinator)

UNIDO

Dr. Mohamed Eisa, Project Manager, UNIDO, Vienna
Mr. Adegboyega O. Ajani, Regional Co-ordinator, UNIDO RIDC, Abuja, Nigeria
Dr. B. Sugavanam, CTA

2. **Agenda**

The meeting which was chaired by Dr. M. Eisa of UNIDO reviewed and adopted the draft agenda for the meeting and carried out deliberations on the issues contained in the agenda and reviewed all the documents prepared for the meeting.

3. **Introduction**

Prof Thomas, Director, GRC, welcomed participants to the meeting and expressed the pleasure of the GRC to collaborate with UNIDO and the two countries in the implementation of the project. He noted with satisfaction the tremendous achievements that had been made in the development and approval of the full project since the last meeting of the Steering Committee in March 2006 and looked forward to the successful implementation of the project to the benefit of all the stakeholders.

The Project Manager, Mr. Eisa thanked the GRC for hosting the meeting and all the participants for their efforts in the development of the full project as well as their commitment to the project. He also expressed his appreciation for their presence at the meeting. He informed the meeting of the approval of the full project by GEF and looked forward to their continued support and cooperation in the implementation of the full project.

4. **Proceedings of the Meeting**

The meeting went through the Minutes of the last Steering Committee meeting held in March 2006 at GRC, Cardiff and adopted it without any amendment.

The Chief Technical Adviser (CTA) presented to the meeting the progress report of the project since the last Steering Committee meeting. After giving a rundown of the list of documents prepared for the meeting he made a presentation of the activities carried out during the implementation of the PDF-B project and achievements made in the delivery of the expected

outputs, which culminated in the approval, by the Global Environment Facility (GEF) of the project brief prepared for the full project. The CTA also presented to the meeting the development objectives of the full project as well as implementation strategy and financing arrangements/mechanism. He noted that the project is unique as no other agency is working in the area of POPs contaminated sites for GEF in Africa. He also informed the meeting that GEF only approved laboratory scale pilot remediation and that no on site remediation will be carried out as this has been left for implementation under the public-private partnership (PPP) arrangement.

The representative of the National Project Coordinator for Ghana reported to the meeting on the preparatory activities carried out in mobilizing co-financing resources, private sector and civil society participation in the implementation of the project. He expressed optimism that resources will be mobilized from both the UNDP and DANIDA from on-going technical assistance programmes in the areas of land management and water security/water quality management respectively. According to him the University of Ghana has expressed interest to cooperate and support the programme particularly in establishing the Geo-Environmental Research Centre. He informed the meeting that efforts have been put in place to involve the civil society and the private sector in the implementation of the project in areas of environmental education, awareness raising and socio-economic impact assessment. The Ghanaian Chamber of Mines has agreed to cooperate and collaborate in the implementation of the project through provision of in-kind support.

The representative of the Nigerian National Project Coordinator expressed the commitment of Nigeria to the project and informed the meeting that efforts are being made by the Government to mobilize resources to meet the co-financing requirement of the project. He mentioned that the oil companies operating in Nigeria and some private sector industries are being contacted for financial support to the project. He also disclosed that the federal ministry of Environment is discussing with both the World Bank and UNDP on related projects from which funds can be mobilized for the project. The Government is also looking at using the polluter pays principle to mobilizing funds for the project from defaulting companies. He informed the meeting that the Ministry is also using its contacts within GEF to expand the scope and coverage of the project. According to him the National Project Coordinating Unit for Nigeria will be located within the Federal Ministry of Environment in Abuja for ease of coordination.

The meeting later went into intensive deliberations and discussions on the approved project brief and related documents, proposed workplan, implementation arrangements and requirements for various components of the project as well as the budget and contribution in kind and cash from the key partners and collaborators. The GRC, Cardiff informed the meeting that out of the US\$700,000 (£400,000) indicated in their letter of support dated 24 March 2006 the sum of US\$245,000 (£140,000) will be their in-kind contribution while the rest will be covered by the project. The meeting requested that GRC should provide details of the costing of their inputs to the project totalling US\$ 700,000 (£400,000) during the four-year duration of the project to assist in preparing the Terms of Reference for the engagement of their services under a subcontract arrangement. A number of decisions and recommendations were made that will ensure the smooth take-off of the project and a successful implementation of the project.

The meeting agreed that the two countries should review outputs 1 and 2 (project coordination and policy/legal framework) and advise on the milestones to be achieved, the GRC Cardiff look into outputs 3, 4 and 5 (capacity building, technology transfer/establishment of GRC and IMS) while UNIDO and GRC, Cardiff also look into activities under output 6 (monitoring and evaluation). The meeting agreed on the following milestones for the initial take-off of the project:

- establishment of the various coordinating units to be achieved by first quarter of 2007
- inception meeting to be organized by February 2007
- first draft of national policy on POPs contaminated sites prepared by December 2007
- final draft of national policy on POPs contaminated sites prepared by September 2008
- draft regional policy on POPs contaminated sites prepared by December 2008

5. Decisions and Recommendations

The meeting arrived at the following decisions and recommendations based on the outcome of the discussions and deliberations carried out:

- a) Output I: Project Coordination
- i) The Government of Nigeria and Ghana to provide to UNIDO in writing the exact location of the National Coordinating Unit (NCU) for the project and host institutions for Geo-Environmental Research Centre as well Information Management System (IMS)
 - ii) The Government of both Ghana and Nigeria should assign capable and competent staff for the operation of the NCUs
 - iii) The Governments of Ghana and Nigeria should identify a suitable young and qualified candidate for the post of the Director of the GRC who will be trained at the GRC, Cardiff on geo-environmental research and business development
 - iv) The CTA should prepare the Terms of Reference for the Regional Ministerial Committee, Project Steering Committee, Regional Project Coordinating Unit and the National Coordinating Unit.
 - v) Following the signing of the MOU between UNIDO and ECOWAS The regional Project Coordinating Unit should contact ECOWAS Secretariat in Abuja, Nigeria to discuss their areas of interest under the project which can be funded through support from the European Union under the EU – ECOWAS collaboration and cooperation.
 - vi) The GRC-Cardiff should prepare a proposal for the establishment of similar GRCs in Ghana and Nigeria by end of 2006
 - vii) The GRC should provide an itemized breakdown and costing of their services to the project during the life-time of the project
 - viii) The CTA should prepare the TOR for the services to be provided by GRC under a subcontract arrangement
 - ix) The next meeting of the Committee will be held in six months as stipulated in the project document.

6. Closing

The Chairman, Dr. Mohamed Eisa thanked participants for their support and cooperation and GRC for hosting the meeting and providing the necessary administrative and logistic support. He enjoined members to immediately embark on the necessary follow up actions to ensure that the implementation of the project takes off in earnest in January 2007.

The Director, GRC-Cardiff, Professor Thomas, Director, thanked participants for a successful meeting and re-affirmed the commitment of GRC-Cardiff to the project. He looked forward to the cooperation and support of all parties for the success of the project.

The meeting was brought to a close.

Appendix 2: NGO/CIVIL SOCIETY COMMITMENT TO THE PROJECT

The NGOs have been consulted in both the enabling activities and the PDF-B projects. They took great interest in the various consultation meetings held during the years 2004 to 2006. In particular, the two one-day seminars in Accra, Ghana and Abuja, Nigeria organized under the PDF-B project were attended by more than 30 NGOs, companies and press in each country.

A NGO in Nigeria called Nigerian Environmental Society (NES) is actively involved in the national sensitization to POPs contamination. They organize workshops and are actively involved in the NIP and PDF-B activities. As an example copy of a letter from NES to UNIDO, Nigeria is copied below.

Copy of letter to Mr. Ajani/UNIDO Regional Coordinator, Abuja, Nigeria

Quote:

Dear Ajani,

I am forwarding our IPAM, which will precisely give you some information and you could also visit IPEP home page for IPEP projects details on <http://www.oztoxics.org/ipepweb/>. Click on projects, view countries or project index. At the moment 3 NGOs from Nigeria are participating in the IPEP network after a regional capacity building programme in Tanzania, they are Nigerian Environmental Society (NES), Friends of the Environment (FOTE), Nigerian Environmental Study Team (NEST).

Our (NES) Project workshop objectives are:

- * To raise awareness and enlighten stakeholders and the general public on POPs issues and POPs contaminated sites (hotspots) in the Nigeria environment.
- * To present to stakeholders current information on types of contaminants present, ownership, storage and condition of stocks based on the project findings.
- * To build capacity of stakeholders towards the phase one activities of the African Stockpile Programme (ASP) in the management and reporting of POPs and POPs pesticides in Nigeria.
- * To propose environmental benign ways (low cost environmentally sound remediation technologies) of cleaning up contaminated sites, etc.

The Guest Speaker (an erudite environmental scientist of international repute) is Prof. Oladele Osibanjo (Director, African Regional Centre, Basel Convention and HOD, Chemistry Department, University of Ibadan) who will speak on "Global and National POPs Situation". Other technical presentation by Dr. Lawrence Ezemonye (Associate Prof. Department of Life Sciences, University of Benin) who would speak on "Identification and Control of POPs contaminated (Hotspots) in Lagos". Goodwill messages are also expected from international NGOs such as Pesticides Action Network, U.K and AGENDA, Tanzania and UNIDO.

Expected to grace the event are environmental professionals and environmentalist, Government officials, MAN, Farmers Associations, Chemicals Users (owners, distributors, associations) national NGOs and CBOs, Media, UNIDO/UNDP, SON, NAFDAC, etc.

I hope you find this information useful. Let me know if you require more information.

Unquote

Appendix 3: SAICM AFRICA REGIONAL GROUP MEETING REPORT

PROPOSED INSTITUTIONAL ARRANGEMENTS FOR SAICM (SAICM/PREPCOM.3/INF/11)

Submitted by the African Group

BACKGROUND

The text adopted at the African Regional Meeting held in Saly, 15-18 March 2005, was used as the departure point for further consultation within the African region, to elaborate the criteria and to examine possible options for the SAICM Institutional Arrangements.

1. The SAICM institutional arrangements should operate an open, transparent, and inclusive process involving the participation of all responsible and relevant stakeholders at international, regional, sub-regional and national levels in its deliberations.

Functions

2. Successful implementation of SAICM will require arrangements to ensure the following functions are undertaken.
 - (a) Ensure that all activities in the Global Plan of Action are effectively implemented, taking into account any existing activities
 - (b) Promote compliance with existing international instruments
 - (c) Monitor and report on progress on implementation
 - (d) Review SAICM measures and priorities, and update as needed, to ensure SAICM implementation is on track to meet the SAICM overall goals and targets
 - (e) Provide policy guidance on the continuing implementation of SAICM
 - (f) Promote coherent governance at international, regional and national level
 - (g) Work to ensure that the necessary financial and technical resources are available for implementation
 - (h) Ensure ongoing participation of private sector, labour public interest organizations and science (academic institutions) and intergovernmental organizations with relevant mandates
 - (i) Communicate the recommendations of SAICM to the appropriate intergovernmental organization governing bodies and other relevant institutions
 - (j) Liaise with focal points which may be established to facilitate implementation of SAICM at the regional and national levels
 - (k) Evaluate the performance of the financial mechanism in support of SAICM
 - (l) Promote the strengthening of the countries' national chemicals management coordination mechanisms, capacities and abilities
 - (m) Ability to emerging issues as they arise

Criteria

3. The criteria for any additional institutional arrangements for SAICM need to include the following:
 - Must have sustainable funding sources and mechanism
 - Must not duplicate the mandates of other existing institutions
 - Must have political/policy capacity
 - Must have administrative and technical capacity

4. Political/policy capacity

- Include multi-stakeholder participation;
- Multi-sectoral in nature;
- Ability to take authoritative decisions that will be implemented nationally;
- Ability to influence international/intergovernmental organizations involved in chemicals management;
- Ability to promote coherent and co-ordinated approach;
- Capacity to secure the collaboration and cooperation of national, regional and international bodies;
- Capacity to help strengthen national coordinating mechanism and national capabilities for chemicals management;
- Ability to ensure that the governing bodies of intergovernmental organizations give full and appropriate considerations to SAICM decisions.

5. Administrative and technical capacity

Ability to:

- Evaluate the implementation of the SAICM Action Plan and progress towards achieving the 2020 goal.
- Prepare progress reports.
- Engage stakeholders.
- Establish and implement mechanism to ensure that recommendations are conveyed to international organizations.
- Assist in identifying gaps in scientific knowledge.
- Promote information exchange and scientific and technical cooperation.
- Advise Governments in their work on chemicals management.

6. **Possible options for the institutional arrangements for SAICM**

The following options could be considered for the SAICM institutional arrangements:

- (a) To assign responsibility to one or more existing intergovernmental organisations involved in chemicals management;
- (b) To assign responsibility to the IFCS with the possibility of revising its Terms of Reference;
- (c) Possible combination of (a) and (b) above.

7. **Proposal**

Since the mandates of existing IOMC institutions include many of the activities listed in the concrete measures, it is proposed that the SAICM institutional arrangements complement the functions of existing institutions and not duplicate them. Successful SAICM implementation will require full support from all relevant intergovernmental organizations.

8. While recognizing the fact that the SAICM process has developed with the participation of all stakeholders, the momentum achieved should be retained to undertake the even greater challenge of overseeing implementation. It is therefore proposed that institutional arrangements for SAICM be established by the International Conference on Chemicals Management (ICCM) as follows:
 - (a) The SAICM preparatory process will be converted to a Review Conference using the rules of procedure adopted for the preparatory process and which will provide the political/policy oversight.
 - (b) The SAICM Review Conference will be supported by a secretariat, which will provide the administrative and technical support required. The Secretariat will undertake the

functions assigned to it by the Review Conference, under the direction of the Expanded Bureau, UNEP and WHO may jointly undertake responsibility for the operation of the secretariat. Ideally, the functions of the SAICM secretariat and the IOMC secretariat (based within UNEP); as well as upon the work and experience of the IFCS and IOMC Secretariats (based within WHO).

- (c) Each country should establish a National SAICM Focal Point, which should ideally, should be based within a national inter-ministerial /inter-agency chemicals coordinating body.
 - (d) The Review Conference will meet every two years to ensure effective implementation of the SAICM Global Plan of Action.
 - (e) The Expanded Bureau formula will be used for a SAICM Bureau to under the functions delegated to it by the Review Conference and will meet at least once annually.
 - (f) Regional Groups will be established, to facilitate monitoring and review of implementation in their region and to facilitate regional reporting to the Review Conference. SAICM regional groups should ideally meet intersessionally. Such Intersessional work groups may meet face-to-face or may operate by email and teleconference.
 - (g) The SAICM Review Conference may establish intersessional work groups with well-defined terms of reference that report back to the SAICM Review Conference and/or Bureau. Such intersessional work groups may meet face-to-face or may operate by email and teleconference.
 - (h) Relevant Intergovernmental organizations are requested to assume responsibility for activities that fall within their mandate and:
 - i. Adopt SAICM at the earliest governing body meeting after the adoption of SAICM High Level Conference;
 - ii. Ensure that the necessary resources are made available through their budgets to implement the assigned responsibilities;
 - iii. Agree that their governing body will periodically review decisions of the SAICM Review Conference, and will give programmatic and budgetary consideration to requests from the SAICM Review Conference;
 - iv. Report periodically on progress in implementation of their assigned SAICM responsibilities to the SAICM Review Conference.
9. The functions of the SAICM Review Conference will be to:
- (a) Ensure that all SAICM activities effectively implemented,
 - (b) Promote compliance with existing international instruments and programmes,
 - (c) Monitor and report on progress of implementation,
 - (d) Provide policy guidance on implementation,
 - (e) Promote coherent governance at international, regional and national level,
 - (f) Work to ensure that the necessary financial and technical resources are available for implementation,
 - (g) Ensure ongoing participation of private sector, labour, public interest organizations and science (academic institutions) and intergovernmental organizations with relevant mandates,
 - (h) Evaluate the performance of the financial mechanism in support of SAICM,
 - (i) Promote the strengthening of national chemicals management coordination mechanism, capacities and abilities,
 - (j) Address emerging issues as they arise.
10. The functions of the Secretariat will be to support the activities of the Review Conference by undertaking the following tasks:

- (a) Collection and collation (and, in part, evaluation) of information on SAICM implementation;
- (b) Synthesize and review reports submitted by stakeholders;
- (c) Preparation of progress reports;
- (d) Promote engagement with stakeholders;
- (e) Ensure that recommendations from the policy body are conveyed to international organizations involved in chemicals management;
- (f) Help identify gaps in scientific knowledge;
- (g) Promotion of information exchange and scientific and technical cooperation;
- (h) Advise Governments as necessary;
- (i) Communicate the recommendations of SAICM to the appropriate intergovernmental organization governing bodies and other relevant institutions;
- (j) Liaise with SAICM focal points.

SAICM Focal Points

11. To sustain an integrated approach to managing chemicals, it is recommended that Governments establish central bodies to implement SAICM on an inter-ministerial or inter-institutional basis. Mechanisms must therefore be established at national and regional levels to promote and facilitate implementation as follows:
- (a) Each country should establish a national focal point, to interact with the SAICM institutional arrangement;
 - (b) The SAICM focal point should represent the country's inter-ministerial body or inter-institutional arrangement where established.
 - (c) Each Focal Point should have one or two alternates, ideally all from different ministries or agencies.
 - (d) The national SAICM Focal Point should receive the invitation to participate in the SAICM Review Conference.

ANNEX 7: PPG COMPLETION REPORT**UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION**

Project title: Regional project to develop appropriate strategies for identifying sites contaminated by chemicals listed in Annexes A, B and/or C of the Stockholm Convention – Ghana and Nigeria

Project No.: GF/RAF/05/001

GEF ID: 2720

Activity Completion Report on the use of GEF Project Preparation Grant (PPG) as of 30 April 2007

Approved			Actual			
Proposed activities at approval	GEF Financing	Co-Financing	Completed Activities	GEF Financing committed	Co-financing committed	Uncommitted Funds
Output 1: Overview of policy and legal framework for the management of contaminated lands	\$150,000	No breakdown		\$148,000	\$20,000	\$2,000
1.1 Drafting group on contaminated land policy, strategy and regulations			Working groups on policies, strategy and regulations were established.			
1.2 Working group on risk assessment and risk management policy requirements			The working group on policy consisting of national and international experts discussed in depth (both in Ghana and Nigeria) the risk assessment and risk management policy requirements of the project and information were incorporated in the full Project Brief.			
1.3 Working group on financial and economic incentives			An advanced discussion seminar for high-level decision makers from Ghana and Nigeria took place in Cardiff, UK in Nov. 2005 where policy issues related to contaminated lands/sites including risk assessment were discussed.			
1.4 Working group on National Classifications systems for contaminated lands			A one-day seminar on policy issues was organized in Ghana for the benefit of stakeholders, news media and donors.			

Approved			Actual			
Proposed activities at approval	GEF Financing	Co-Financing	Completed Activities	GEF Financing committed	Co-financing committed	Uncommitted Funds
Output 2: Assessment of national and regional level capacity building and institutional strengthening	\$140,000	No breakdown		\$138,500	\$10,000	\$ 1,500
2.1 Local/national training needs on various aspects of contaminated lands management including IMS as decision-making support tools			Various training needs for contaminated sites management for local experts were identified and incorporated in the Project Brief.			
2.2 Training needs on design and implementation of POPs contaminated land management plans			A one-day regional seminar was organized in Abuja for the benefit of stakeholders, government officials and the news media.			
2.3 Need for establishment of inter-sectoral committees for the joint management of contaminated lands at local, national and regional levels			It was agreed to set up an intersectoral committees at various levels during the implementation of the Full-sized Project.			
Output 3: Identification of national expertise available to perform pilot case project for identification, assessment and use of low cost but environmentally sound remediation technologies in selected hotspots	150,000	No breakdown		\$148,200	\$20,000	\$1,800
3.1. Working group on methodologies for identification of POPs contaminated land and hot spots			Activities completed through inter disciplinary expert group meetings organized in Ghana and Nigeria. The one-day regional seminar in Abuja on low cost remediation technologies addressed all issues on methodologies for identification of POPs contaminated sites and hotspots, assessment of best available technologies, risk and social impact, which were then incorporated in to the full Project Brief. It was agreed to come up with a toolkit for systematic identification of POPs contaminated soil in the region.			
3.2. Working group on assessment of best available low cost remediation technologies						
3.3. Technical groups on identifying implementation elements of remediation technologies related to community perception of risks and social impact.						

Approved			Actual			
Proposed activities at approval	GEF Financing	Co-Financing	Completed Activities	GEF Financing committed	Co-financing committed	Uncommitted Funds
3.4. Scientific group on continuous identification of special capital requirements for post implementation monitoring.			This will be part of the M&E plan of the full project.			
Output 4: Outlines of a frame for stakeholder involvement and establishment of IMS, public awareness and environmental education programmes	120,000	No breakdown		\$116,700	\$10,000	\$3,300
4.1. Information material needed to develop a data base for contaminated soil			All the activities were carried in interdisciplinary expert group meetings organized in Ghana/Nigeria and through a discussion seminar organized in Cardiff for national experts.			
4.2. Establishment of IMS to disseminate methodologies and techniques on best practices.			A robust IMS will be established and will be operated by trained personnel. Electronic portal on land remediation has been initiated and task team has been set-up.			
4.3. Strengthening of public awareness for communities and environmental education			The regional seminars held in Abuja and Accra were attended by more than 30 NGOs, companies and the press in each country.			
Output 5: Monitoring and Evaluation plan	50,000	No breakdown		\$50,000	\$10,000	0
5.1. Working group on M&E for the project			All the activities were completed in expert group meetings and will be further detailed during the full project implementation. The Project Steering Committee met three times (Sept. 2005, March 2006 and Nov. 2006) to evaluate progress and addressed among other items the M&E plan.			
5.2. Task for development of indicators						
5.3. Task for development of targets						
5.4. M&E consolidated plan						

Approved			Actual			
Proposed activities at approval	GEF Financing	Co-Financing	Completed Activities	GEF Financing committed	Co-financing committed	Uncommitted Funds
Output 6: Preparation of full Project Brief	\$40,000	No breakdown		\$40,000	\$10,000	0
6.1. Formation of Project Steering Committee and Managers Task Force			Activities 6.1 to 6.2 were completed			
6.2. Compilation and integration of all inputs emanating for project activities						
6.3. Preparation of full Project Brief			1 st draft of the Project Brief was discussed in the 2 nd PSC meeting and the final version was discussed during the 3 rd PSC. Also co-financing was seriously discussed for follow-up at the government/ministry level.			
6.4. Complete full project document with detailed budget, TOR, work plan and implementation timetable			Executive Summary, Project Brief and Annexes documents were completed except the ToRs for various groups including sub-contract arrangements. Negotiations with donors are still ongoing.			

Project Preparation Grant Management

	Approved			Committed		
	Staff weeks	GEF financing	Co-financing	Staff weeks	GEF Financing	Co-financing
Personnel		25,000	8,000	49	24,400	5,000
Local Consultants		128,000	30,000	144	108,300	20,000
International Consultants		264,000	22,000	106	280,900	20,000
Training		60,000	20,000		82,000	10,000
Office equipment		20,000			23,000	10,000
Travel:						
Local		53,000			84,000	
International		30,000			30,000	5,000
Subcontract		20,000			0	0
Miscellaneous		50,000			8,800	10,000
Total	Not defined	650,000	80,000	299	641,400	80,000

Outputs from completed project preparation activities:

Introduction:

Soon after the approval of the PDF-B project, a Project Steering Committee was formed and the 1st Project Steering Committee meeting took place in Cardiff (28-29 September 2005), which mainly discussed the implementation of the PDF-B in line with outputs and activities of the approved PDF-B. The implementation strictly adhered to the proposed timetable in the 1st PSC meeting. The report of the meeting is attached as Annex 6.

Output 1: Overview of policy and legal frameworks for the management of contaminated lands

Activities	Results
1.1 Drafting group on contaminated land policy, strategy and regulations	<ul style="list-style-type: none"> • A policy/legal framework working group was formed to address the activities of this output consisting of the CTA, international consultant on environmental laws and regulations/ enforcement, two senior nationals from Ghana and Nigeria and two national coordinators of Ghana and Nigeria along with the officer of the UNIDO Regional Industrial Development Office, Abuja. • Two intensive group discussions (over a 2-week period) were held in Abuja and Accra to analyse the existing policies, regulations in the 2 countries, findings and recommendations of the NIPs and prepared a consolidated account of the existing environmental laws and identified the gaps that need to be addressed. • A week long Discussion Seminar of senior national/international consultants took place in Cardiff (Nov. 2005) and extensively covered the legal aspects in industrialised countries on land contamination and the requirements for Africa in general and Ghana/Nigeria in particular. In addition, 2 separate inter-country meetings of legal experts took place in Accra, Ghana (Jan. 2006) and Ibadan, Nigeria (Feb. 2006) where compilation of all the existing environmental laws/regulations were done. The activity and lessons learned were compiled for inclusion in the Project Brief.
1.2 Working group on risk assessment and risk management policy requirements	<ul style="list-style-type: none"> • The risk assessment of land contamination/management and incorporating them in the policy/legal framework for both Ghana and Nigeria discussed by the policy/legal framework working group supported by risk assessment experts. In an international discussion seminar held in Cardiff, a one-day session covered this aspect along with capacity building. In a one-day seminar in Accra, the findings and requirements were reported to all relevant Government officials/stakeholders.
1.3 Working group on financial and economic incentives	<ul style="list-style-type: none"> • The working group considered these incentives but it was agreed that this should be form as part of the implementation of the Full-sized Project at the Ministerial level so that the follow-up project assures sustainability and replicability.
1.4 Working group on National Classification Systems of contaminated land	<ul style="list-style-type: none"> • The legal policy working group recommended that a national and later at regional level, a classification system for contaminated lands should be established based on risk assessment/type of project usage. This was also part of the Outputs of 2.3 and 4. A detailed work plan for this policy /legal framework/enforcement and training has been agreed for this output in the implementation of the Full Project.

Activities for **Outputs 2 and 3** were assigned to a group consisting of the CTA, the Regional Industrial Development Officer, UNIDO-Abuja, 2 international consultants and 4 national consultants and national coordinators

Output 2: Assessment of national and regional level capacity building and institutional strengthening

Activities	Results
2.1 Local / national / regional training needs on various aspects of contaminated lands management systems including on information management systems and decision making support tools.	<ul style="list-style-type: none"> The group held discussions at various levels in different institutions including NGO organizations and assessed the individual country needs and compiled them for a coordinated national / regional approach to address the issue. The recommendations of the various sub-groups were consolidated for the main project implementation. The groups visited various laboratories in Lagos and Accra and short-listed 4 laboratories based on the infrastructure facilities and skilled staff and assessment of the training needs of both countries.
2.2 Training needs on design and implementation of POPs contaminated land management plans	<ul style="list-style-type: none"> As a continuation of Activity 2.1, the training needs were assessed for management of contaminated lands in general and POPs contamination in particular. A visit was organized to potential hotspots in Lagos and Accra where the sub-groups made on-the-spot assessments.
2.3 Need for establishment of Intersectoral Committees for the joint management of contaminated land at local, national and regional levels	<ul style="list-style-type: none"> The importance of Intersectoral Committee was emphasized and agreed in the group discussions and the Project Steering Committee meetings and incorporated in the Organizational set-up for the implementation of the Full Project.

Output 3: Identification of national expertise to perform pilot case project for identification, assessment and use of low cost but environmentally sound remediation technologies in selected hotspots in the region

Activities	Results
3.1 Working group on the methodologies for identification of POPs contaminated land and hotspots	<ul style="list-style-type: none"> The same sub-group that looked after Output 2 looked into this important capacity building for carrying out selected low-cost technologies. In Ghana, one institution was selected and in Nigeria, one will be selected based on short-listing of two institutions. It was agreed to have 2 institutions (not stand-alone) that will act as Geo-environmental Research Centres (GRCs) that will take up the development of a systematic support tool for the identification of POPs contaminated land based on robust methodology and such a tool could be replicated in other countries in the region. This will be done in close consultation with all stakeholders involved especially in ranking, monitoring, containment and mitigation based on risk assessment/management.
3.2 Working group on assessment of best available low-cost technology (technology transfer)	<ul style="list-style-type: none"> The working group (for Outputs 2 and 3) recommended the systematic approach in doing experimental scale remediation methods and come up with suitable low-cost remediation technologies that could be taken up for practical application.

Activities	Results
<p>3.3 Technical group on identifying implementation elements of remediation technologies related to community perception of risks and social impact.</p> <p>3.4 Scientific group on continuous identification of social capital requirements for post implementation monitoring.</p>	<ul style="list-style-type: none"> The same sub-group realized the importance and sustainability of this aspect and a one-day seminar in Abuja and the Discussion Seminar in Cardiff carefully looked into this complex subject and the necessary elements have been incorporated in the Project Document including promotion of “ppp” based on developing realible socio-economic impact of contaminated lands and their future developments, if taken up.

Output 4: Outlines of frame for stakeholder involvement and establishment if IMS, public awareness and environmental education programmes

Activities	Results
<p>4.1 Information material needed to develop a database for contaminated sites.</p> <p>4.2 Establishment of IMS to disseminate methodologies and techniques on best practices.</p> <p>4.3 Strengthening of public awareness for communities and environmental education.</p>	<ul style="list-style-type: none"> The IMS discussions in Ghana and Nigeria revealed the existence of good information dissemination system in the country and how information on contaminated lands could be integrated with existing systems. Role of NGOs especially women NGOs were specially emphasised for incorporation in the Full Project implementation. The requirements of setting up a reliable/robust IMS database for the region and also creating pubic awareness and environmental education were identified. All these requirements were accordingly included in the Project Brief. Later, it was decided that UNIDO will set-up an E-portal for interactive interaction by stakeholders on the management of contaminated lands.

Output 5: Monitoring and Evaluation plan

Activities	Results
<p>5.1 Working group on M&E for the project.</p> <p>5.2 Task for development of indicators.</p> <p>5.3 Task for development targets.</p> <p>5.4 M&E consolidated plan</p>	<ul style="list-style-type: none"> All sub-groups jointly discussed the M&E of the implementation of the Full Project, developing indicators based on existing situation and project evaluation based on UNIDO/GEF evaluation methodologies and also taking into consideration suggestion by the GEF/PM. Based on this, a consolidated M&E plan was developed and agreed in the 3rd PSC meeting.

Output 6: Preparation of a full Project Brief

Activities	Results
6.1 Formation of PSC and Management task force	<ul style="list-style-type: none">• A Project Steering Committee was formed and met 3 times during the PDF-B implementation. The Management task force mainly operated in the field led by the national coordinators supported by the CTA, UNIDO Project Manager and the RIDO in UNIDO Abuja.
6.2 Compilation and integration of all inputs emanated in project activities. 6.3 Preparation of the Full Project Brief in accordance with GEF established format.	<ul style="list-style-type: none">• Full Project Brief in accordance with the GEF format was approved by the Council in August 2006.
6.4 Following approval by GEF, the PSC would develop and finalise project document including detailed budget, TORs, work plan and implementation time table	<ul style="list-style-type: none">• The Project Document taking into account the comments of the GEF/PM is now finalised for CEO endorsement.

Link documents to various activities and outputs

1. Minutes of three Project Steering Committee meetings (September 2005, February 2006 and November 2006)
2. National/international discussion seminar, Cardiff, November 2005 (in CD format)
3. Minutes of Regional expert group meetings in Accra, Ghana (January 2006) and Ibadan, Nigeria (February 2006)
4. Technical reports of CTA
5. GRC, Cardiff Mission Report to Ghana and Nigeria
6. Policy Report by Mr. Robert Sleat
7. Reports on 2 one-day meetings with stakeholders on policy/legal framework and assessment low cost technologies for contaminated land remediation and news media coverage
8. Full project brief
9. Draft TOR for NCUS, RCU and for GRC Cardiff.