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UNITED NATIONS INDUSTRIAL DEVELOPMENT ORGANIZATION

# **Independent Final Evaluation Report of the UNIDO**

**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 Number: GF/RAF/07/024 and TF/RAF/09/008**

**April 2015**

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## **Acknowledgement**

The Independent Final Evaluation (IFE) Evaluation Team (ET) would like to acknowledge the contributions made to this evaluation report.

Cristóbal Vignal      International consultant and Team leader

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The views and opinions of the Evaluation Team do not necessarily reflect the views of the Governments of Ghana or Nigeria or of other countries covered by the evaluation, nor of UNIDO.

This document has not been formally edited

## Glossary of Evaluation Terms

<b>Term</b>	<b>Definition</b>
Baseline	The situation prior to an intervention, against which progress can be assessed.
Effect	Intended or unintended change due directly or indirectly to an intervention
Effectiveness	The extent to which the objectives of a development intervention were or are expected to be achieved.
Efficiency	A measure of how economically inputs (through activities) are converted into outputs
Impact	Positive or negative, intended or non-intended, directly and indirectly, long term effects produced by a development intervention
Indicator	Quantitative or qualitative factors that provide a means to measure the changes caused by an intervention
Intervention	An external action to assist a national effort to achieve specific development goals
Lessons learned	Generalizations based on evaluation experiences that abstract from specific to broader circumstances
Logframe (logical framework approach)	Management tool used to guide the planning, implementation and evaluation of an intervention. System based on (Management by Objectives) also called Results-based Management principles.
Outcomes	The achieved or likely effects of an intervention»s outputs.
Outputs	The products in terms of physical and human capacities that result from an intervention
Relevance	The extent to which the objectives of a development intervention are consistent with beneficiaries requirements, country needs, global priorities and partners and donor»s policies
Risks	Factors, normally outside the scope of an intervention, which may affect the achievement of an intervention»s objectives
Sustainability	The continuation of benefits from an intervention, after the development assistance has been completed.
Target groups	The specific individuals or organizations for whose benefit an intervention is undertaken

## List of Acronyms

ASP	African Stockpiles Program
BAT/BEP	Best available techniques and best environmental practices
CTA	Chief Technical Advisor
ECOWAS	Economic Commission of West African States
EHS	Environment and Human Safety
EIA	Environmental Impact Assessment
EPA	Environmental Protection Agency of Ghana
EVA	UNIDO Evaluation Group
GC	Geo-environmental Centres
GCLME	Guinea Current Large Marine Ecosystem
GEF	Global Environment Facility
GEF SGP	GEF Small Grants Programme
GRC	Geo-Environmental Research Centre, Cardiff University
HCB	Hexachlorobenzene
IMS	Information Management Systems
LFA	Log Frame Analysis
M&E	Monitoring and evaluation
MTE	Mid-term Evaluation
NCU	National Coordinating Unit
NGO	Non-governmental organization
NIP	National Implementation Plans
NIP	National Implementation Plan
PCB	Polychlorinated biphenyl
PIR	Project Implementation Report
POPs	Persistent Organic Pollutants
PSC	Project Steering Committee
RCU	Regional Coordinating Unit
RMC	Regional Ministerial Committee
RO	Regional Office
RSC	Regional Steering Committee
U-POPs	Unintended Emissions of POPs
UNDP	United Nations Development Programme
UNIDO	United Nations Industrial Development Organization
UNIDO SCU	UNIDO Stockholm Convention Unit
WB	World Bank



## Executive Summary

The purpose of the IFE is to enable the Government, counterparts, the GEF, UNIDO and other stakeholders and donors to:

- (a) Verify progress made for development impact and sustainability, and reexamine the relevance of the objectives and other elements of the Project according to the project evaluation parameters defined in chapter IV;
- (b) Verify how far the findings and recommendations of the independent MTE carried out in 2011 have been taken into account;
- (c) Based on progress since the MTE propose a set of recommendations with a view to ongoing future activities beyond the completion of the Project;
- (d) Draw lessons of wider applicability for the replication of the experience gained in the Project in other projects/countries taking into consideration wide ranging challenges faced in implementing projects in this region.

The key question of the evaluation is whether the Project has made a significant contribution to reducing the effects of POPs contaminated sites on human health and the environment.

The evaluation was carried out from June to August 2014 and followed UNIDO and GEF evaluation guidelines and policies. UNIDO staff associated with the projects was kept informed and regularly consulted throughout the evaluation process alongside other stakeholders. The evaluation team leader liaised with the UNIDO Evaluation Group (EVA) on logistic and/or methodological issues as/when was required to conduct the review. The methodology applied by the evaluation team involved a desk review of available documentation and semi-structured interviews with key project stakeholders.

The objective of the 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 policy/legal framework, enforcement and capacity building. The project was based on the countries' National Implementation Plans (NIPs) under the Stockholm Convention. As a result of the project, the participating countries were expected to build up capacity 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 implemented through National Coordination Units set up in Ghana and Nigeria under the supervision of a Regional Coordination Unit (RCU) set up in the UNIDO Regional Office, Abuja, Nigeria. UNIDO covers the salary of the Regional Coordinator, office space and at least one secretary under its field operational budget. The Government departments deal with national coordination units assigned to them on a national basis. The project implementation is under the oversight of a Regional Ministerial Committee (RMC) and Regional Steering Committee (RSC) to ensure that a high-level importance is given to policy and legal objectives of the project.

The quality at entry of the project was assessed as **Moderately Satisfactory** because of the deficiencies in stakeholder involvement during preparation, and furthermore, because of the poor results orientation of the project, which subsequently was not corrected during implementation.

The effectiveness of the project was assessed against the expected outcomes and this has been determined to be **Moderately Unsatisfactory**. Although the Toolkit has been completed, and the Policy, IMS and, GRC components have been started and to some extent, have made progress towards their respective outputs, the M&E, and capacity building and assessment of socio-economic impact of POPs contaminated lands/sites components were not completed. This affected project effectiveness, as without adequate M&E systems and socio-economic studies

the correct prioritization of sites for management and eventually remediation cannot be made. In light of this, efficiency of the Project is assessed as **Unsatisfactory**, given in particular that some of the expected outputs were not completed. Finally the sustainability of the Project was assessed as **Moderately Unlikely**.

Based on the evidence, the overall assessment of the implementation status and progress towards outcomes of the project is **Moderately Unsatisfactory**.

This said, although implementation of this relatively complex project in Nigeria and Ghana was not as smooth as was initially expected, continued involvement and support for activities of this type still holds great promise in both countries. This could build on the findings and recommendations presented below, and be supported by the many active NGOs, under the able guidance of the highly trained local expertise available in both countries.

### **Recommendations UNIDO**

1. UNIDO should have better supported the Governments of Ghana and Nigeria in building relationships with the private sector (Energy, oil and gas, mining, agriculture and industrial sectors) - alongside the current focus on state-owned power utilities - to build financial and economic sustainability for the GRCs and, use of the toolkit.
  - This could have been achieved by enlarging the composition of the PSC to include interested private sector partners.
2. UNIDO should have better supported the Governments of Ghana and Nigeria and led the way on implementing awareness and EHS campaigns within the public power utilities and with adjacent communities (e.g., adjacent to Lagos Lagoon) to warn of the dangers of POPs contamination and clearly explain measures to reduce risks of exposure.
  - The project should have developed and followed through with a concerted effort to work with the public utilities to ensure opportunities to release POPs are minimized and foundations laid for remediation of contaminated sites.
3. UNIDO Regional Office in Abuja and the national office in Ghana should have established coordination mechanisms with the GEF SGP (administered by UNDP) to tap into existing NGO capacities in POPs awareness raising and community-based action.
  - In particular, as the SGP has a number of completed / ongoing POPs projects with NGOs in Nigeria and Ghana to develop awareness-raising projects & build capacity on POPs. This would have provided a rapid and effective way to deliver some of the awareness-raising components, and health and safety information, to those on the front line of this issue, thus contributing to the sustainability of the project.
  - The possibility of channeling project funds through the SGP should have been fully explored (possibly pilot projects with pesticides and POPs) to ensure that the deployment of the different components was effective and of relevance to the different segments of the population.
4. UNIDO should have facilitated a longer term deployment of the CTA (5 – 6 months) during the final phase of the project to provide not only specialized chemicals-related knowledge, but also managerial guidance to complete:
  - The regional M&E system;
  - The adaptation, testing and deployment of the toolkit;
  - The GRC business plans (fine tuning and full deployment) and the building and strengthening of relations with the private sector;
  - The socio-economic, health and environmental studies (coordinating with the Ministries of Health);

- Awareness-raising activities.

### **Recommendations Government (Nigeria & Ghana)**

1. The overall government capacity for implementation and for enforcement should have been strengthened
  - This not only in terms of offices and related infrastructure, administrative systems and management structures, but also in terms of human resources where the loss of, or leaking capacity (including political changes & deployment/retirement), as well as limited number is estimated to represent a constant risk to the successful and longer-term sustainability of the project.
2. Awareness-raising and sensitization of workers, generally unaware of the socio-economic and health dangers of mishandling and inappropriate disposal of PCBs<sup>1</sup>, should have been actively pursued to mitigate the continued negative health and environmental impacts. This would have directly contributed to reducing the effects of POPs on human health and the environment, the highest-level output (impact) the project could hope to achieve.
  - The public power utilities should have been first in line to benefit from these efforts, followed by engaging constituencies, consulting and educating these with simple, graphical and gender-balanced materials (in local languages).
3. Mechanisms should have been put in place to enshrine the use of the toolkit in policies and legal frameworks so that relevant stakeholders such as industry would have no choice in its application. This would have contributed to the overall sustainability of the GRC and of the system as a whole.
  - The wider applicability of the toolkit to assess contamination from a range of hazardous wastes in addition to POPs would have opened additional possibilities and helped to position it as an indispensable tool, applicable in diverse contexts – and the Governments should have worked towards this through appropriate regulatory measures and incentives.
4. Governments should have worked with UNIDO to forge synergies with the UNDP and World Bank PCB projects, as well as with existing power sector reform projects (World Bank). Tackling the issue of PCBs is largely about cleaner production of energy, and has to be linked to power sector reform.

### **Lessons Learnt**

The following are considered to be valuable lessons to be learnt from the missed implementation opportunities of the project:

- Implementation of an M&E system should not be considered an optional requirement. In its absence, the methodical and structured implementation, the close tracking of progress - redressing as necessary – and, the successful achievement of all expected outputs are unlikely to take place. This in turn compromises the expected outcomes and the longer term impacts envisioned during the design and inception phases;
- Sequencing of implementation of the different components could have led to a more coherent set of outputs and eventually to a series of near-simultaneous outcomes;

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<sup>1</sup> The evaluation mission was told PCBs oils were routinely dumped on the grass adjacent to the workshop and 4 – 5 meters from the Lagos Lagoon.

- Rapid implementation of key components (such as the IMS, awareness raising, etc.) would have helped to build awareness and support changes in behavior among the public and workers exposed to and/or using POPs;
- Presence of a CTA is essential not only to provide technical backstopping, but also in support of the role played by the RCU on the ground;
- Absence or limited presence and guidance from a CTA - a key figure for successful implementation of projects - can significantly contribute to the quality of the final results;
- Continuity planning is essential in order to avoid delays at the national level, when project figureheads retire;
- Not having a decentralized task manager in the region (Managing from Vienna) can contribute to delays in implementation.

## CHAPTER I - Evaluation objectives, methodology and process

### ***Information on the evaluation***

The Independent Final Evaluation (IFE) of the UNIDO Regional Project to Develop Appropriate Strategies for Identifying Sites Contaminated by Chemicals Listed in Annexes A, B and/or C of the Stockholm Convention (the Project) followed UNIDO and GEF evaluation guidelines and policies. UNIDO staff associated with the projects was kept informed and regularly consulted throughout the evaluation process alongside other stakeholders, as required. The evaluation team leader liaised with the UNIDO Evaluation Group (EVA) on logistic and/or methodological issues as/when was required to conduct the review.

The above-mentioned evaluation guidelines and policies aim to promote accountability for the achievement of project objectives through assessment of results, effectiveness, processes and performance of stakeholders involved during project implementation.

The IFE was carried out from June - August of 2014 by Cristóbal Vignal who had acted as International Consultant and Team Leader for the mid-term evaluation (MTE).

The UNIDO evaluation group was responsible for the quality control of the evaluation process and report. It provided inputs regarding findings, lessons learned and recommendations from other UNIDO evaluations, ensuring that the evaluation report would be useful for UNIDO in terms of organizational learning (recommendations and lessons learned) and its compliance with UNIDO evaluation policy and the Terms of Reference (ToR) prepared for the IFE (Annex 1).

### ***Scope and objectives of the evaluation, main questions to be addressed***

The purpose of the IFE is to enable the Government, counterparts, the GEF, UNIDO and other stakeholders and donors to:

- (e) Verify progress made for development impact and sustainability, and reexamine the relevance of the objectives and other elements of the Project according to the project evaluation parameters defined in chapter IV;
- (f) Verify how far the findings and recommendations of the independent MTE carried out in 2011 have been taken into account;
- (g) Based on progress since the MTE propose a set of recommendations with a view to ongoing future activities beyond the completion of the Project;
- (h) Draw lessons of wider applicability for the replication of the experience gained in the Project in other projects/countries taking into consideration wide ranging challenges faced in implementing projects in this region.

The key question of the evaluation is whether the Project has made a significant contribution to reducing the effects of POPs contaminated sites on human health and the environment.

The main issues addressed by the ET were the following:

- Project relevance and design
- Effectiveness: attainment of objectives and planned results (progress to date).
- Efficiency
- Assessment of sustainability of project outcomes
- Assessment of monitoring and evaluation systems and project management
- Assessment of processes affecting attainment of project results.

### **Information sources and availability of information**

Information sources used for the assessment consisted of official project related documents, presentations by experts, progress reports, project products, and interviews with key players (see detailed list below).

Although documentation was provided by UNIDO, and the information was accessible and made available in a timely manner, as was pointed out during the MTE, this was limited by the lack of project monitoring and evaluation (M&E) data, which meant that reporting at the level of outputs was limited, at the field level.

Documentary evidence tended to place emphasis on reporting on activities and project management issues. M&E was a project component, which, however, in both countries has not been implemented; hence, no related information was available. The MTE and IFE evaluators had to construct the extent to which the project had progressed towards outcomes and impacts based on combination of methods mentioned above.

The information sources used for the evaluation were as follows:

Documentary sources:

- Original Project Brief document
- Request for CEO endorsement/Approval. 25 November 2008
- Annex A: Project Results Framework
- Progress and financial conciliatory monthly reports of UNIDO
- GEF PIR and annual progress reports on Project Evaluation
- CTA Final Report

Interviews/follow up written questions were conducted/received with/from the following stakeholders:

- Adegboyega Ajani - Programme Officer - UNIDO - Regional Coordinating Unit
- Balasubramanyan Sugavanam - CTA

### **Methodological remarks, limitations encountered and validity of the findings**

The methodology for the IFE was based on the following:

1. A desk review of project documents, in particular those produced since the MTE including, but not limited to:
  - (a) (Changes to) the original project document, monitoring reports (such as Progress and financial reports to UNIDO and GEF, annual Project Implementation Review reports), output reports (case studies, action plans, sub-regional strategies, etc.) and relevant correspondence;
  - (b) Notes from the meetings of steering- and other committees;
  - (c) Other project-related material produced by the project.
2. The ET will use available models of (or reconstruct if necessary) theory of change for the different types of intervention (enabling, capacity, investment, demonstration). The validity of the theory of change will be examined through specific questions in interviews and possibly through a survey of stakeholders.
3. Counterfactual information: In those cases where baseline information for relevant indicators is not available the evaluation team will aim at establishing a proxy-baseline through recall and secondary information.

4. Interviews as needed based on the MTE and on a selective basis with project management and technical support including Mr. Mohamed Eisa, Chief UNIDO POPs Unit or his designate, project staff in the countries and staff associated with the project's financial administration and procurement if necessary.
5. Interviews as needed with project partners, in particular those that have been selected for co-financing as shown in the corresponding sections of the project documents.
6. Results achieved in demonstration projects, including interviews of actual and potential beneficiaries of improved technologies and capacities since the last evaluation.
7. Interviews and specially telephone interviews with intended users for the Project outputs and other stakeholders involved with this project. The evaluator shall determine whether to seek additional information and opinions from representatives of any donor agencies or other cooperating organizations.
8. Interviews if needed with the UNIDO Offices in Nigeria and Ghana and the project's management and committee members and the various national and sub-regional authorities dealing with project activities as necessary, including GEF focal points. If deemed necessary, the evaluator shall also gain broader perspectives from discussions with relevant GEF Secretariat staff.
9. Other interviews, surveys or document reviews as deemed necessary by the evaluator and/or UNIDO EVA.

The IFE ET took into consideration the MTE report and noted that the MTE ET considered that there was sufficient evidence to allow them to establish a baseline for the project; sources of information were sufficient to verify and document the progress and constraints encountered during the assessment; data and information derived from interviews were qualitatively satisfactory and that this was verified through comparison of figures from different sources and through crosschecked interviews with relevant actors in an independent way, showing that respondents views and contributions were in full agreement.

This was however not the case for the IFE, and the ET considers that the additional information available was limited (Consolidated Final Report, PIRs, minimal financial information (budget and cofinancing – Nigeria)) and although vigorous attempts were made to contact and set up interviews with key stakeholders<sup>2</sup>, these were mostly unsuccessful.

Given the above, it is important to note - for the correct appreciation of the report presented below - that the information obtained allowed the ET to document and/or verify the final results of the Project based only on limited sources. To summarize, determining if progress to date corresponded to the activities, outputs and outcomes set out in the logical framework of the Project and, measuring these by the indicators defined in the logical framework, was based on limited available information.

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<sup>2</sup> This included e-mails and eventually required preparation of a questionnaire, which also had very limited response.

## CHAPTER II - Countries and project background

### **Brief context**<sup>3</sup>

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 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, 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).

### **Sector specific issues of concern**

A number of key-issues of concern were identified in the Project Document, such as the lack of adequate policies and legal frameworks, including lack of national policies on POPs; 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; and, lack of capacity to conduct risk management decision for contaminated land/site remediation.

### **Project Summary Facts**

**Full 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*

<b>Project numbers:</b>	GF/RAF/07/024 and TF/RAF/09/008
<b>Planned starting date:</b>	September 2007 (actual starting date January 2009)
<b>Planned duration:</b>	4 years
<b>Total Project Budget:</b>	US\$ 4,750,000
<b>Counterparts:</b>	Governments of Ghana and Nigeria (Regional) Ministry of Environment and Science, Accra, Ghana Federal Ministry of Environment, Abuja, Nigeria Regional Industrial Development Office in Abuja (UNIDO)

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<sup>3</sup> ProDoc



**The objective** of the 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 policy/legal framework, enforcement and capacity building.

The project is based on the countries' National Implementation Plans (NIPs) under the Stockholm Convention. As a result of the project the participating countries are expected to build up capacity 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 "endeavor 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".

Based on the project objectives, the following outputs were to 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 frameworks for the management of contaminated sites;
- iii. 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 environmental information management systems (IMS) and frameworks for stakeholder's engagement and public education awareness programme;
- vi. Regional Monitoring and Evaluation Plan.

The proposed project aimed to produce a toolkit for the systematic identification of sites contaminated by POPs and methodologies for the decontamination of contaminated sites that could eventually benefit the 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 project takes into account sustainability and reproducibility 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.

### **Expected global, national and local benefits**

At the end of the project, the two participating countries, Ghana and Nigeria, are expected to have developed the capacity to systematically identify POPs contaminated lands and sites and to have endorsed regional policy and national legal frameworks for proper management of POPs contaminated sites. The countries will have prepared a toolkit for the selection of appropriate technologies for the countries to adopt in a stepwise manner using a risk assessment/management approach. The outcome would be a full participation of all stakeholders in the two countries and greater understanding of the public and environmental education related to POPs contaminated lands/sites.

The two local Geo-environmental Centres established under the project in Ghana and Nigeria will 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.

The countries will 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. Finally, a regional monitoring and evaluation system would be in place, making the project outcomes sustainable and replicable for the whole African region.

### **Project Overview<sup>4</sup>**

Before the present projects were implemented, a PDF-B project under the same title (GF/RAF/05/001) had been implemented with a budget of USD 650,000 (actual expenditures USD 622,644). This project was implemented from mid 2005 to end of 2008 and resulted in the formulation of the evaluated project.

The cost and co-finance figures for the main project are given below. Furthermore, a UNIDO contribution was made to the project under Project Number YA/RAF/09/005 with an amount of USD 19,050 (actual expenditures USD 14,412).

A cash co-finance contribution from the Government of Nigeria was paid into a Trust fund (TF/RAF/09008) and also implemented by UNIDO (see table below).

<b>GFRAF07024</b>						
<b>Budget Line</b>	<b>Type of Expenditure</b>	<b>Total Allotment</b>	<b>Disbursements</b>	<b>Unliquidated Obligations</b>	<b>Total expenditures</b>	<b>Remaining balance</b>
<a href="#">19-99</a>	Personnel	695,607	510,734	70,818	581,552	114,055
<a href="#">29-99</a>	Contracts	596,000	250,711	80,000	330,711	265,289
<a href="#">39-99</a>	Training	358,000	190,329	5,677	196,006	161,994
<a href="#">49-99</a>	Equipment	315,000	5,609	22,355	27,964	287,036
<a href="#">59-99</a>	Miscellaneous	35,393	22,856	12,217	35,073	320
		<b>2,000,000</b>	<b>980,239</b>	<b>191,067</b>	<b>1,171,306</b>	<b>828,694</b>
<b>TFRAF09008</b>						
<a href="#">19-99</a>	Personnel	328,882	210,299	4,710	215,009	113,873
<a href="#">29-99</a>	Contracts	120,000	115,557	0	115,557	4,443
<a href="#">39-99</a>	Training	235,505	116,276	0	116,276	119,229
<a href="#">49-99</a>	Equipment	193,500	147,276	0	147,276	46,224
<a href="#">59-99</a>	Miscellaneous	172,000	143,812	13,802	157,614	14,386

<sup>4</sup> Terms of reference for the IFE (ToR GFRAF07024\_TFRAR09008 final clean.pdf)

		1,049,887	733,220	18,512	751,732	298,155
<b>Total</b>						
<a href="#">19-99</a>	Personnel	1,024,489	721,033	75,528	796,561	227,928
<a href="#">29-99</a>	Contracts	716,000	366,268	80,000	446,268	269,732
<a href="#">39-99</a>	Training	593,505	306,605	5,677	312,282	281,223
<a href="#">49-99</a>	Equipment	508,500	152,885	22,355	175,240	333,260
<a href="#">59-99</a>	Miscellaneous	207,393	166,668	26,019	192,687	14,706
		3,049,887	1,713,459	209,579	1,923,038	1,126,849

UNIDO Infobase, 24 May 2011

### ***History of Project Implementation***

The initial project concept was proposed to UNIDO by Nigeria in late 2004 and then expanded to include Ghana in 2005. In general terms, the project was conceived and designed from 2005 to 2008 and, as mentioned above, the design process was initially supported by a GEF PDF-B grant of US\$650,000. Although the project was effectively designed from mid-2005 through mid-2006 and was ready for GEF CEO approval and implementation start, it was delayed because of the change of GEF CEO; actual approval was given in October 2007 and implementation began in January 2008.

UNIDO was selected as the GEF agency on the basis of: (a) industrial development, chemicals and cleaner production background, including previous work on reducing industrial pollution in Lagos Lagoon; (b) strong involvement with the SC; and (c) the existing relations built during the implementation of the two NIP projects.

Three Project Steering Committee (PSC) meetings were held during the design phase to develop the proposal and establish the level of funding to be required from the GEF and in co-finance. The only stakeholders from both countries to be involved in the PSC were the representatives from the Ministry of Environment (Nigeria) and Environmental Protection Agency (EPA - Ghana). Two one-day consultation workshops to raise awareness about the project were held in Abuja and Accra in 2006, and were attended by NGOs and companies (private sector).

Although in general the design of projects sequentially lay out the steps required to arrive at given outputs, the MTE ET considered that it was not clear if implementing projects in a sequential (linear) manner was, at least in this case, the best approach to deliver the expected results. The MTE could only observe that significant delays had taken place - which in addition to those encountered at the inception of the project (signature of documents, transfer of cash contributions) - could be in direct relation to the linear implementation of the project.

### ***Project Implementation Arrangement***

The project is implemented through National Coordination Units (NCU) set up in Ghana and Nigeria under the supervision of a Regional Coordination Unit (RCU) established in the UNIDO Regional Office in Abuja, Nigeria. UNIDO covers the salary of the Regional Coordinator, office space and at least one secretary under its field operational budget. The Government departments deal with national coordination units assigned to them on a national basis.

The project implementation is 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 policy units in Ghana and Nigeria are 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.

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.

The project plans to establish Geo-environmental Centres (GCs), linked to private sector. Care has been taken not to establish any stand-alone institution whose operational costs would eventually be difficult for governments to cover from the recurrent budgets. The Centres will play a key role in technical capacity building in Ghana and Nigeria and will continue to be responsible to develop and update the toolkit.

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 Geo-environmental Centres with the Government in line with public-private partnership to share the cost beyond the proposed project.

The Geo-Environmental Research Centre (GRC) located in Cardiff University, UK with long standing experience in industrial and agricultural land remediation cooperates as a technical partner making available its expertise and technical facilities during the implementation of the project.

### ***Positioning of Project, other Institutional Arrangements***

The project design was closely linked to Article 6 Section 1(e) of the Stockholm Convention, which states that Parties shall “endeavor 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 **immediate objectives** of the project were set out as:

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

## CHAPTER III - Project Assessment

### A. Project Relevance and Design

Overall, quality at entry of the project is judged by the ET to be **Moderately Satisfactory** because of the deficiencies in stakeholder involvement during preparation, and furthermore, because of the poor results orientation of the project, which subsequently was not corrected during implementation.

***Relevance to national development and environmental agendas, recipient country commitment and, regional and international agreements. Relevance to target groups: relevance of the project's objectives, outcomes and outputs to the different target groups of the interventions (e.g. companies, civil society, beneficiaries of capacity building and training, etc.). Was the project formulated with the participation of national counterpart and/or target beneficiaries?***

The GEF Secretariat desk review of the projects indicates that a number of concerns were expressed over design of the project-related financial sustainability, private sector involvement in national GRCs, use of the toolkit, as well as regarding linkages with other related projects.

Even though, the project preparation focused well on the Ministry of Environment (Nigeria) and the EPA (Ghana), but did not sufficiently move beyond these two key stakeholders to build relations with other important partners – the private sector / industry and agriculture being the most important for project sustainability.

Several stakeholders that seemed to be largely absent from the project design phase included the industrial / manufacturing associations and private sector in both countries. For example, the MTE mission could find no evidence that the oil and gas, mining or manufacturing industry had been involved in project design and implementation despite the project document<sup>5</sup> stating that industry would be involved with a view to making the in-country GRC and capacity building initiatives sustainable<sup>6</sup>.

It would have been relevant to have at least industry / manufacturing associations and / or public energy utilities involved as part of the PSC during the design phase, alongside the NGOs, in order for the foundation for sustainability in the project to be laid down early on. This did not happen and was a missed opportunity.

The regional aspect of the project is presented in terms of sharing experiences (results) and knowledge on policy to ensure that similar approaches are developed, and also with regard to sharing IMS information (component-output 5). However, the MTE mission observed that during implementation the countries were acting mostly independent of one another and that this was akin to two distinct national projects being implemented in parallel.

The MTE pointed out that there were opportunities to develop meaningful regional sharing of experiences, particularly with regard to the testing and adaptation of the toolkit to local country contexts, and that although the toolkit had been presented in a number of workshops, it appeared that an opportunity to truly ensure its wide dissemination at least in neighboring/ECOWAS countries and popularize its use had been missed. On a positive note, the FIE was able to verify that this document has now been made widely available online on a variety of websites (UNIDO, UNEP, ESEPA, etc) and as regards testing of its use, this reportedly has taken place in Ghana and Nigeria, and is ongoing in Sao Tome and Principe, as well as in Tanzania, although UNIDO is not following up on results.

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<sup>5</sup> The project document (page 16) states: "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."

<sup>6</sup> The project document stated the Mobile Oil Company was involved in the design phase, but evidence indicates that this was restricted to attendance at workshops, with no involvement in implementation

In addition, although the project design phase identified a number of ongoing UNDP, World Bank and bilateral chemicals / POPs initiatives with which ‘possible linkages and synergies’ could be made <sup>7</sup>, it appeared that it was not possible to concretize the linkages during the additional time afforded during the project preparation delay.

Subsequently, under the first phase of implementation, the project had only linked the IMS (component-output 5) to the Guinea Current Large Marine Ecosystem (GCLME) lab at the University of Lagos (not fully functional during the visit of the ET under the MTE). The MTE pointed out that there were several other POPs projects currently under implementation, such as the Ghana (UNDP) PCB project, and although the Project intended to build links with this initiative, the realities of implementation at that time showed that design intentions had not been fulfilled.

This situation has reportedly evolved in a positive way as the IFE ET was informed that in addition to the linkages with the GCLME project for development of the IMS mentioned above, work had also been carried out as regards identification of hotspots. Furthermore, linkages have reportedly also been established with the World Bank on PCB Management, in particular information exchange and experience-sharing; with the Basel Convention on Trans-boundary Movement of Hazardous Wastes, leading to the establishment of the GRC laboratory at the Basel Convention Regional Centre in Ibadan; and finally with the African Stockpile Project (ASP) regarding information exchange and experience-sharing for the identification of potential hotspots.

***Relevance to GEF and UNIDO: In retrospect, were the project’s outcomes consistent with the focal areas/operational program strategies of GEF? Were they in line with the UNIDO mandate, objectives and outcomes defined in the Programme & Budget and core competencies? Ascertain the likely nature and significance of the contribution of the project outcomes to the wider portfolio of the GEF Operational Programme (OP) #14.***

The project was in-line with GEF-4 strategy for POPs and fit in with goals to (a) strengthen capacities for the implementation of NIPs; and (b) partnering in the demonstration of feasible, innovative technologies and best practices for POPs reduction and substitution. It also was aligned with SC guidance which stressed capacity building for sound management of chemicals identified in the NIP and also identification of BAT / BEP. However, the project did not address the GEF-4 strategy to develop investments for the actual reduction and elimination of POPs, as disposal of the POPs found at the contaminated sites was not included in the project design.

The project is relevant to UNIDO’s POP approach, which mirrors the GEF strategy. The project has linked to UNIDO’s Water Management program through its link to the Guinea Current Large Marine Ecosystem (GCLME) project through the IMS component. However, the MTE found that opportunities had been missed to link the project to UNIDO’s Cleaner Production initiatives in Nigeria, particularly in relation to promoting the toolkit among the private sector (e.g., Oil and gas, mining industry and also manufacturing industry around Lagos). This was partially corrected as mentioned above by establishing a number of linkages to relevant international initiatives, however an opportunity was missed by UNIDO to link with its own initiatives on the ground.

Ideally, the Project should have included at least seed funds for remediation of the identified pilot sites as this would have allowed not only for the testing of the Toolkit and laboratory capacities, etc., but would have also provided an opportunity for UNIDO to position itself as a longer term partner through promotion of demonstrated and replicable technologies.

***Is the project’s design adequate to address the problems at hand? Was a participatory project identification process applied and was it instrumental in selecting problem areas and national counterparts? Does the project have a clear thematically focused***

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<sup>7</sup> UNIDO did visit the other agencies during the project design phase

**development objective, the attainment of which can be determined by a set of verifiable indicators? Was the project formulated based on the logical framework approach?**

The MTE discussions indicated that the initial project concept originated with Nigeria, whom approached UNIDO. This was against a backdrop of the rising scale of POPs pollution in addition to serious oil and gas related pollution affecting the country and concomitant to this the large number of contaminated sites. Furthermore, Nigeria had a strong presence within the SC, which made the justification for the national project clear with respect to GEF assistance.

However, this combination of factors does not necessarily justify the regional approach taken. Indeed, the inclusion of Ghana took place at a later date in the initial project design process and largely in terms of a passive receiver of the design. This was confirmed to the MTE ET by several stakeholders who pointed out that Ghana had “never been in the drivers seat” in terms of project design. The decision to involve Ghana was considered due to language and proximity, as well as given the fact that other potential partners countries were coming out of conflicts (Liberia, Sierra Leone), or were considered to be too far away from Nigeria (The Gambia).

Overall the results orientation of the project design was unclear; this was mainly due to flawed log-frame which contained only outputs and output-level targets. Although outcomes were specified in the project document, they lacked clarity and tended to be formulated as outputs<sup>8</sup>.

The effect of the lack of results orientation has meant that outputs have been confused with outcomes and results during implementation. Several stakeholders during the MTE mission referred to the ‘toolkit’ as the most important ‘result’ of the project. However, the toolkit is only an output - it requires clear accountability measures and incentives to enable use or uptake by a range of project stakeholders<sup>9</sup>. This is not clearly mapped out in the project logic. The focus on outputs in the design may have lead to some of the faults observed in the project implementation such as the RCU and National Coordinators’ focus on activities (inputs).

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<sup>8</sup> Project Document pp.22-23

<sup>9</sup> Other sectors of development such as gender, agriculture, biodiversity etc. have developed ‘toolkits’, however, they frequently fall out of use if not backed by accountability and incentive measures.

## **B. Effectiveness**

***What outputs and outcomes has the project achieved so far (both qualitative and quantitative results)? Has the project generated any results that could lead to changes of the assisted institutions? Have there been any unplanned effects? Are the project outcomes commensurate with the original or modified project objectives? If the original or modified expected results are merely outputs/inputs, the evaluators should assess if there were any real outcomes of the project and, if there were, determine whether these are commensurate with realistic expectations from such projects. To what extent have the expected outputs and outcomes been achieved? How do the stakeholders perceive their quality? Were targeted beneficiary groups actually reached?***

The effectiveness of the project was assessed against the expected outcomes, as stated in the initial project document<sup>10</sup> and effectiveness has been determined by the ET to be **Moderately Unsatisfactory** as detailed below. At the time of the MTE, the projects' effectiveness and results were also deemed to be marginally satisfactory as not all components were at the same state of development and implementation.

For the purposes of this assessment, given that most of the outputs were completed at time of the preparation of the MTE, and that the same ET was selected to carry out the Independent Final Evaluation (IFE), only activities that were completed after the MTE took place have been covered in detail, however, relevant information from the MTE has been summarized and/or used as required, for clarity sake.

The Toolkit has been completed, and the Policy, IMS and, GRC components have been started and to some extent, all have made progress towards their respective outputs. The M&E, and capacity building and assessment of socio-economic impact of POPs contaminated lands/sites components were not completed; this reduces project effectiveness, as without adequate M&E systems and socio-economic studies the correct prioritization of sites for management and eventually remediation cannot be made.

Although the policy and enabling framework development is positive, there has been a missed opportunity to regionalize the project through ECOWAS. While ECOWAS was initially approached, efforts to ensure incorporation of the principles of the toolkit into the higher-level policy decisions of the regional institution have fallen short of what was required to facilitate a positive outcome. The MTE observed that the institution wishes to be involved, even though human and financial resources to do so are modest. In this sense, the fact that the ECOWAS Secretariat is located in Nigeria should have been treated as an opportunity to be capitalized upon before the project ended. Although at the time of preparation of the IFE, the information made available to the ET confirmed that steps to approach ECOWAS had been undertaken - mainly by sharing of the National Policy – it appears that the ultimate objective of having this mainstreamed into the ECOWAS Action Plan has not materialized. However additional information made available early 2015 to the ET indicated that “the policy outcome of the project has been fully integrated into ECOWAS regional environmental policy and staff member from ECOWAS Secretariat has been designated to ensure continuous incorporation of the regional policy on contaminated sites management into national levels and to further ensure sovereignty of the national policy institutions to make their own initiatives”.

The IFE ET also notes that although “it was agreed at the Project Steering Committee meetings in 2011 and also [in] 2012 that the results and outcomes of the project should be presented at any of the meetings of the African Ministerial Conference on the Environment (AMCEN) and any of ECOWAS sub-regional meetings”, no information was provided to show that this recommendation was followed up on.

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<sup>10</sup> CEO Endorsement Document



National and regional capacity building and institutional strengthening efforts are considered to have achieved limited results at present due to attrition, movement or retirement of staff and also because hardware, for which persons are being trained to use, has not been put in place. Hence, training will need to be given again. This is likely to have negative cost implications for the project.

The Toolkit has been developed and tested, which contributes positively to the effectiveness rating; however, as mentioned previously, it is not adapted to the socio-economic realities of the region<sup>11</sup>. In addition, no wide-ranging stakeholder involvement had been sought during the finalization of the toolkit before it was published and distributed in its current shape. Although this has now been presented in a series of workshops, an opportunity was clearly missed to ensure the widest possible use for this tool. However, at the time of preparation of the IFE, the ET was informed that in both countries “the Toolkit methodologies are being adapted for use in investigating sites contaminated by heavy metals and poly-aromatic hydrocarbons in mining sites and oil and gas exploration and exploitation”.

There has also not been any systematic effort to tap into NGO capacity for community outreach / awareness-raising projects, even though, in past, they have implemented GEF-SGP projects on POPs. The project still has an opportunity to build synergies in this area both in Ghana and Nigeria.

Finally, during the MTE missions, project stakeholders informed the ET that progress could have been augmented through the more assiduous and regular presence of the Chief Technical Advisor (CTA) to the project. Under the project design and work-plan, the CTA had been contracted on a part-time (1 – 2 months per year) basis. The role of the CTA is considered as essential not only to provide the technical backstopping, but also in support of the role played by the RCU and the UNIDO offices on the ground in both countries. In this sense, the MTE considered it indispensable to take all necessary actions to ensure the prompt deployment of a CTA, who could provide not only specialized chemicals related knowledge, but managerial guidance to help ensure the completion of activities and movement towards an improved sustainability rating.

Although the ET notes<sup>12</sup> that between Nov 2011 and Dec 2012 the CTA was hired for 2.9m/m<sup>13</sup>, of which 2 weeks in the field, it appears from the results that this was insufficient to lead the project to its successful completion. The ET is of the opinion that in the case of a project involving two such different countries, and given that this had not been picked up on as a risk in the design of the project, it would have been understandable to extend the mandate of the CTA in order to avoid this situation.

**Outcome 1: Ghana and Nigeria would have developed capacity to systematically identify POPs contaminated lands and sites and would have evolved and endorsed regional policy and national legal frameworks for proper management of POPs contaminated sites.**

The MTE mission found that partial progress towards this outcome had been achieved as regards national legal frameworks and, to a lesser degree, towards endorsed regional policy for proper management of contaminated sites. However, the ET found no conclusive evidence that capacity to systematically identify POPs contaminated lands had been developed.

As regards the policies, both Nigeria and Ghana have developed and are in the process of institutionalizing legal frameworks for control of POPs. For Ghana, it is reported that the draft

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<sup>11</sup> It is very difficult and costly to apply a methodology that requires 3 visits to one site prior to it being confirmed as contaminated.

<sup>12</sup> Interview data and UNIDO contracts

<sup>13</sup> 14 days for two missions to the field (Lagos, Ibadan, and Accra and not including Abuja (security reasons)), 8 days to organize the 4th and 5th Steering Committee Meetings (Cardiff, UK) and, the remaining days at Headquarters (“obtain equipment quotations for GC/MS/IMS, evaluation, preparation of Aide Memoirs, writing reports, etc.”) – Questionnaire data

policy/legal framework prepared under the project has been passed in the Parliament (2013), “which is considered an important milestone”<sup>14</sup>. In Nigeria a draft was forwarded to the Federal Executive National Council on Environment in Sept 2011 for final approval for enactment. This has reportedly been endorsed.

As regards the regionalization of these policies, close consultation and information exchange with ECOWAS are reported to have been ongoing to ensure that the regional POPs policy documents were mainstreamed into the ECOWAS Environment Action Plan. Reportedly, at the time of closing of the project the regional policy/legal framework had been finalized and was waiting for consideration by ECOWAS. However, it was also reported “as the project is closed, no further action has been taken”.

The MTE ET found that limited progress on development of the capacity to identify POPs contaminated lands and sites was in the process of being achieved, and concluded that realizing the outcome of “capacity to systematically identify sites” would require, not only availability of a tested and adapted toolkit (the toolkit, in its current state, was judged to be resource and time intensive), but also well deployed institutional capability to identify and sample potential contaminated sites (transfer stations, GRCs and geolocation) and a fully functional IMS. The IFE was informed of progress as regards identification of contaminated sites and this is further discussed under Outcome 5, below.

**Outcome 2: The countries would have achieved preparing a toolkit for the selection of appropriate technologies for the countries to adopt in a stepwise manner using risk assessment/management approach.**

The MTE mission reported that the toolkit had been developed with the assistance of POPs specialists from the University of British Columbia and finalized. Although this was considered a positive output, it was reportedly observed by Ghanaian and Nigerian stakeholders to be “very sophisticated toolkit”, that is more applicable in developed country contexts where the human and financial resources are available and more sustainable<sup>15</sup>.

Although this was to be launched in Nigeria<sup>16</sup>, the Training Workshop on the application of the toolkit and selection of environmentally sound and economically feasible radiation technologies<sup>17</sup> was held at the College of Physicians and Surgeons, Accra, Ghana (13-16 December 2011). This was followed by a Workshop in the Conference Hall of the Federal Ministry of Environment (FMENV), Lagos, Nigeria (2–5 July 2012). Information provided for the IFE indicates that these workshops were well attended and that over 150 participants were sensitized and trained in both countries. In addition, efforts were made to include not only staff of relevant governmental institutions, but also the private sector and NGOs. In addition it was reported that the tool kit was also presented during the Stockholm Convention COP5 in Geneva in 2011 and, launched in Asia at a meeting in Dubai in 2011.

Overall it appears that the toolkit was well received and participants considered that it could be “effectively utilized for risk assessment, management of POPs and other hydrocarbon polluted sites across Ghana & Nigeria”.

Finally the IFE ET was informed that full risk assessments had been carried out to identify/analyze contaminated land at both the Old Ijora Power Plant, in Lagos, and at the Old Mokola Power Plant, in Accra. Nigeria reportedly also “carried out preliminary and detailed site investigation of old transformer storage facilities in Lagos in 2014”, which is considered to be a positive, albeit limited, result.

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<sup>14</sup> Consolidated Final Report of the CTA of the Project (p.22)

<sup>15</sup> In particular this was assessed as time and resource intensive for countries with large territories, posing not only a risk, but also a potential limitation to sustainability and overall replication.

<sup>16</sup> This was delayed until September – due to the new appointment of the Minister of Environment in Nigeria.

<sup>17</sup> Report on Consultancy Assignment on Application of Toolkit for Contaminated Sites Assessment and remediation – Sept 2012

**Outcome 3: 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.**

The MTE concluded that the project overall design had missed out on the opportunities that could have been provided by including the private sector as a principal stakeholder. This was also observed for NGOs who were initially involved (in the design), were currently keen to contribute, but had not been actively involved in the implementation stages.

At the time of the MTE it was pointed out that there was no evidence of a coordinated and integrated approach to include all stakeholders. It was further noted that the project only included limited public sector participation (electricity public utilities), although it was very likely that a significant tonnage of PCB and pesticide chemicals covered by the SC will have been used, and will hence be found, on facilities operated by private companies. In addition it was also mentioned that involvement of the private sector was also indispensable if the GRC capacities were to be used, given this is one of the main, and most likely, only means of ensuring their own sustainability. Finally, regarding involvement of the NGOs the MTE observed that this was equally indispensable in order to mobilize the communities at the grass roots level and raise awareness.

The IFE was not able to evidence the existence of a coordinated and integrated approach to include all stakeholders, although as was mentioned above a number of these have been invited to participate in the workshops conducted to launch the toolkit. The IFE noted that the observations and comments received during the interactive sessions of the workshops to launch the toolkit mention “the need for proactive and strategic measures to be adopted in disseminating information [...] specially at the grass roots level”. Furthermore, the 5<sup>th</sup> and last meeting of the PSC also notes in its Decisions and Recommendations instructs the NCUs “to request for funds under the subcontract to carry out the outstanding activities including the reactivation of the website portal on the project to enhance networking and dissemination of vital information on the project”. This would in turn contribute to awareness raising and sensitization efforts, as described below.

On awareness raising, a newsletter<sup>18</sup> aimed mostly at policy level decision makers has been produced by the project. Whilst this is good in terms of raising visibility of POPs among influential Government officials who often make or influence resource-deployment decisions, the project has yet to reach out to those companies and communities exposed to or using POPs. For example, the MTE observed that awareness and sensitization of workers of the public power utilities at two sites (Ijora, Lagos and Accra) - considered to be two of the most contaminated and polluting sites in both countries - had not been actively pursued. Workers were unaware of the dangers of handling PCB oil (with their bare hands) and of the deleterious environmental effects of dumping the oil. In Ijora, Lagos, the workers explained to the ET how they dumped oil onto the ground adjacent to the Lagos lagoon, from where it seeps into the lagoon [and thus, in the ocean, the neighboring countries and the world via the Gulf of Guinea Current], as well as into the water table. Scientists at the University of Lagos, Nigeria, who have carried out preliminary sediment and water samples within the lagoon, confirmed the pollution in both countries.

Lack of awareness was identified in the NIPs of Ghana and Nigeria as requiring urgent attention, and presently the project is missing an opportunity to make a relevant and timely intervention to improve understanding of the dangers of POPs and change behavior of the workers. Discussions with the NGOs in Ghana and Nigeria indicated that they have the relevant expertise in grassroots awareness-raising using innovative techniques such as community drama (in local languages) which could get important messages across effectively and efficiently.

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<sup>18</sup> POPs Contaminated Site Newsletter. Publication of the Ministry of Environment (Nigeria)

**Outcome 4: (related to Output 4): Two local Geo-environmental Centers 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 MTE mission found that some progress towards Outcome 4 had been achieved in making the GRCs and transfer laboratories operational in Ghana and Nigeria. However, neither the GRC nor the transfer labs were fully functional at the time of the mission (August 2011). This was mainly due to delays associated with retirement and/or changes in personnel within the Ministry of Environment (Nigeria) and EPA (Ghana), elections (Nigeria) and procurement issues (Ghana and Nigeria).

The Nigeria GRC is based at the University of Ibadan. The University was selected as the site of the GRC because it is a national center for hazardous waste and chemistry research, and also houses the Basel Convention Regional Coordination Center, which has a considerable experience in research and practice on POPs and other hazardous waste issues. Hence, the project tapped into existing capacities and leadership rather than creating a new structure to house the GRC. The construction of the lab is complete with most of the hardware installed, however, glassware, chemicals and other equipment were yet to be delivered and/or installed at the time of MTE mission. The IFE ET was informed that “the GRC was launched in August 2014 to promote the array of investigative and analytical services it could offer particularly [those of] the laboratory”.

The transfer lab is sited at the Ministry of Environment office in Lagos. The main purpose of the transfer lab is to prepare and store the samples collected using the toolkit prior to their transfer to the GRC for analyses. At the time of the mission, all the equipment had been delivered and was awaiting the renovation of the lab space. There have been delays in getting the transfer station operational because of personnel changes within the Ministry following the elections and also procurement issues.

The IFE was able to gather information confirming that the Ibadan Laboratory is functional, and that additional glassware and chemicals had been provided, and a Gas chromatograph/Mass spectrometer (GC/MS) was put into operation. No information was provided regarding the transfer laboratory.

In Ghana, the GRC is based at the EPA lab in Accra. The EPA was selected as the site of the GRC based on the existing lab infrastructure, which was old and in need of renovation. At the time of the MTE mission, the hardware for the lab had been procured and delivered. However, it was not installed because the lab was still awaiting renovation, as this was a part of a large renovation project that covered the whole building. The delay in renovating the building was assessed as being outside the control of the project and was not foreseen during the design phase.

The transfer lab is sited at the Ghana National Cleaner Production Center on the outskirts of Accra. It has an identical function to the transfer lab in Nigeria. At the time of the evaluation mission, the lab was yet to be installed; no equipment was on site. Delays in Ghana have been exacerbated by the retirement of personnel within the EPA and also the Government’s own procurement processes for contracting the renovation work of the EPA building.

At the time of the IFE, the Accra Laboratory was reported to be in the process of renovation and no information was provided on the transfer laboratory. However, additional information provided in early 2015 indicates, “The Ghana laboratory is presently supporting the Government of Sao Tome & Principe to manage an eventually clean up a DDT contaminated sites”.

In terms of capacity building to ensure the operation of the GRCs and the transfer labs, training had been given by Cardiff-GRC and this was reported by the trainees to be of a high standard. However, due to delays in facilities becoming operational, many of the trainees reported that

they would need a ‘refresher course’, as the training had been given more than one year ago. Hence, the present situation casts doubt on whether the GRCs could be operated to meet ‘international standards’. Furthermore, the MTE mission found that business plans for the GRCs were being prepared by national consultants, however, with project implementation time running out, there may not be sufficient time to test the operation of the GRCs thoroughly and establish relations with the private sector.

The IFE ET was informed that the Government has provided assurance of their support for the development of the BPs for the GRCs and, in addition that the BPs “have been finalized in consultation with the GRC/Cardiff” and were, at closure of the Project, with the Governments for approval and financing. This is particularly important as several critical operational assumptions need to hold true for the GRCs and transfer labs to operate effectively: (1) Enforcement and incentives for private sector and other stakeholders need to be in place to ensure fee-paying customers for the GRCs (e.g., business plans need to be made operational); (2) The toolkit needs to be cost-effective and efficient to use for the Government and the private sector. These issues are discussed in more detail below:

The toolkit in its current form was described to the MTE by interviewees as not cost-effective, nor easy to deploy. This, in turn, does not encourage additional testing/fine tuning, other than by academia in a very limited number of cases identified by the mission. The FIE was informed that Nigeria was making use of the toolkit to implement a cleanup project which was “underway”.

The combination of enforced regulations and solid business plans will not in itself guarantee the sustainability of the operation of the GRC mechanism; the risk is that without support from the project to simplify the toolkit, the lack of an easily applicable methodology will in turn affect the commercial viability of the GRCs and transfer labs.

**Outcome 5: The countries will have the capability to assess socio-economic impact of POPs contaminated lands/sites.**

The MTE mission could find no evidence that capabilities have been developed to assess the socio-economic impact of POPs. Indeed, several interviewees reported that nothing had been done so far to build capacity to assess socio-economic and health impacts<sup>19</sup> of POPs in and around contaminated sites. Even the Ministry of Health (Nigeria), expected to be involved in developing health ‘indicators’ for measurement of social impacts of POPs in and around the contaminated sites, had little knowledge of the project. In Ghana, it was reported that the Ministry of Health were yet to be involved in the project.

The MTE mission observed significant and continuing pollution within the Ijora (Power Company of Nigeria) workshop. The workers were unaware of the socio-economic and health dangers of inappropriate disposal of PCBs<sup>20</sup> and a situation existed where the potential benefits of the project were being eroded.

The IFE was informed that “the database on hotspots is yet to be established and geo-referenced by the two countries and this will then need to be continually updated”, and that during the 5th SCM, information was provided regarding the fact that “Nigeria, in collaboration with stakeholders, has already identified major potential POPs contaminated sites<sup>21</sup>. The data has been fed into the GIS and, mapping of the sites countrywide is being compiled. As well, information on industries likely to leave POPs footprints was provided. The Website is being setup for feeding information after collecting analytical data, validating and verifying the data.

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<sup>19</sup> At the ground level in an extreme case, the evaluation mission was confronted by a workshop supervisor rubbing oil picked up from the floor on his arm to demonstrate it was innocuous

<sup>20</sup> The evaluation mission was told PCBs oils were often dumped on the grass adjacent to the workshop and 4 – 5 meters from the Lagos Lagoon.

<sup>21</sup> In addition it was reported that a number of potential contaminated sites have been identified from information obtained from the Africa Stockpiles Programme (ASP).

The CTA also recommended carrying out conceptual site modeling on selected sites before any analytical results are available“.

On the positive side, the University of Lagos had carried out some studies of the pollution and PCB loads in Lagos’ Lagoon, but more synergistic research – bringing together scientific and social-scientist to fully comprehend the negative impacts of POPs in and around contaminated sites - is still missing.

**Outcome 6: 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.**

The MTE mission found progress had been made towards putting in place the necessary infrastructure and website for the IMS in Nigeria and Ghana. Some contaminated sites in Nigeria had already been placed on the IMS, for example, several pesticides storage sites had been identified (with significant tonnages). The project had linked with the University of Lagos and the IMS lab established under the GCLME project so as to use existing knowledge and capacity.

The MTE missions observed that the infrastructure had yet to be made fully operational. Furthermore, functioning of the IMS depends on the work of the GRCs and the effectiveness of the toolkit to identify the sites. As in the case of the GRCs, the training on the IMS was given before the IMS has become operational, hence stakeholders recognized that there would be need for ‘refresher training’ towards the end of the project.

In Ghana, the MTE observed that progress has been slow due to delays in procuring computers and software; furthermore, the room in the EPA building that was to house the IMS had yet to undergo renovation. Hence, the lab was non-operational at the time of the MTE mission although situation was reported to have changed at the time of the IFE as mentioned in this report.

Although at the time of the MTE this was only partially established, the IFE ET was informed that as regards in particular the IMS Laboratories, this situation had progressed. In Ghana the office “has been functioning” with a senior IMS specialist, trained at the University of Lagos, who has been assigned to collect data on POPs contaminated soil. In both countries the IMS laboratories are reportedly fully equipped with fully trained staff “with hardware, software and other ancillaries procured and delivered”.

As regards the Nigeria IMS laboratory that was to be established at the Lagos Zonal Office, it was reported by the MTE that this was not yet functional, as it had run into administrative delays<sup>22</sup>. The IFE was informed that this situation had also evolved and that the refurbishing of the new IMS office at Lagos is reportedly completed, although no details on this were provided. In addition, the Temporary IMS office set up at the POPs office in Abuja has been operational and “produced valuable documents and contamination data”. The senior staff of these offices has also reportedly been trained at the University of Lagos.

As the IMS’s mandate is broad-based, covering areas other than POPs, it is argued that, “it should be self sustainable”. In addition, as the IMS was established with the support and cooperation of the Regional Centre for Environmental Information Management System established at the University of Lagos, Nigeria<sup>23</sup>, it is expected that the partnership arrangement established with the Centre will provide the basis for continuous cooperation in areas of capacity building, experience-sharing and information exchange arrangements. Although this is considered by the ET to be a moderately likely to likely scenario, this IFE is not in the position to ascertain that this will hold true.

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<sup>22</sup> Delay in the release of funds from the NCU Subcontracts by the Government (procedural formalities) – Consolidated Final Report of the CTA

<sup>23</sup> Under another project on Large Marine Ecosystem Management

Public awareness is also part of the IMS, but apart from the newsletter, little has been achieved (see previous comments under Outcome 3 and 5).

**Outcome 7: A regional M&E system would have been in place and all of these will make the project outcome sustainable and replicable for the whole African region.**

The original project work-plan in the project document intended to develop M&E indicators in the first year of implementation followed by establishment of socio-economic indicators for POPs contaminated sites and involvement of civil society (NGOs). These fall under the responsibility of the RCU / UNIDO and the GRCs.

The MTE mission found that no progress had been made towards establishing a regional M&E system and observed that this was in part due to the non-operational status of the GRCs. The MTE also pointed out that much of the work on socio-economic indicators could have been done in advance of the GRCs becoming fully operational and, that several stakeholders reported that M&E ‘was not a priority’.

The IFE was also not able to document progress regarding outputs that would contribute to this outcome. Although on one hand the IFE received no information as regards the development and implementation of a M&E system allowing to track progress, on the other it was informed that “socio economic indicators could not be carried out due to time and financial constraints” and the Consolidated Final Report of the project confirms this: “Carrying out of the socioeconomic impact of POPs on the community turned out to be much more complicated due various complicated parameters due to absence of base line exposure levels and also coming into contact many chemicals during their daily life.”

No proposals to remediate this situation seem to have been envisaged prior to the end of the Project’s life.

***Identify the potential longer-term impacts or at least indicate the steps taken to assess these (see also below “monitoring of long term changes”). Wherever possible, evaluators should indicate how findings on impacts will be reported to the GEF in future.***

Potential longer-term impacts of the Project are not considered to be fully aligned with the expectations laid out in the original project document, as has been mentioned repeatedly throughout this document.

Although the steps taken to assess these are in part picked up in the present final review, as there is no M&E tracking mechanism to allow for these to be continuously tracked, a valuable source of data for ulterior evaluations will not be easily available, hence these longer-term impacts will be difficult – at the very least - to assess.

With the information available at this stage, it is in no way guaranteed that without the active and on-going support of the Projects’ main stakeholders, the opportunity for turning these outputs into meaningful outcomes and eventual impacts is to be taken for granted. This is indicated throughout this evaluation and remains a risk.

***Catalytic or replication effects: the evaluation will describe any catalytic or replication effect of the project. If no effects are identified, the evaluation will describe the catalytic or replication actions that the project carried out. No ratings are requested for the project’s catalytic role.***

No evidence was presented to the IFE ET to allow it to document specific instances of the catalytic or replication actions taken by the Project.

### **C. Efficiency**

***Was the project cost effective? Was the project the least cost option? Was project implementation delayed, and, if it was, did that affect cost effectiveness? Have the donor, UNIDO and Government/counterpart inputs been provided as planned and were adequate***

**to meet requirements? Was the quality of UNIDO inputs and services as planned and timely?**

The Efficiency of the Project is assessed as **Unsatisfactory**, given some of the outputs were not completed.

As regards UNIDO and Government/counterpart inputs, the IFE ET was not informed of any constraints that would have been placed on the project by unfulfilled obligations.

As regards the least cost option, the IFE ET was informed the although originally the project envisaged signing a major subcontract with the GRC, Cardiff, to assist with project implementation, this was changed to payment on service basis, and combined with subcontracts to National Coordinator Units to empower them and encourage full involvement in the implementation phase. It is reported “on hindsight it looks that it was a right decision as far as paying GRC Cardiff based on service rendered, however the NCU subcontracts were only partially successful. The reason being there was a lack of understanding of the terms of reference, which are legally binding, while the recommendations of the Project Steering Committee [carried] only a broad based understanding and commitment”.

In the case of Nigeria it is also reported that further to disbursement of payment, “the project authorities had innumerable problems in having access to the money whenever needed due to government internal rules and regulations” and that “added to this the project authorities and the executing agency are partners in implementation, [hence] UNIDO could not put pressure on the project authorities as they would have done, had the subcontractor been with a private party”.

Although “in the end it turned out that UNIDO had to terminate the NCU subcontract with Ghana” - presumably due to lack of understanding of these legally binding requirements - on a positive note, it is reported that implementation of at least the subcontract for renovation of the Ibadan Laboratory was completed, as agreed by UNIDO and the NCU of Nigeria.

As regards delays, the car bomb that was detonated at the UN building in August of 2011 – one week after finalization of the MTE – affected the operations of the UNIDO RO and hence of its programmes and projects. Although the IFE ET cannot specifically attribute a number of weeks or months to this observation, it is understandable that project files and communications were compromised during the period. It is however reported that the situation returned to “normal” after the offices were moved to a different location.

Finally, as regards M&E, the objectives of the Project were not met, as explained below.

**D. Sustainability**

**Financial, Socio-political, Institutional Framework and Governance, and Environmental Risks**

Overall, the evaluation team has assessed the sustainability of the Project as **Moderately Unlikely** and this was assessed at four levels: (1) Institutional (Governance and capacity); (2) Financial and economic; (3) Socio-political and (4) Ecological.

During interviews, the evaluation team also noted negative stakeholder considerations as relates specifically to the awareness-raising components, pointing out that this “exists only on paper”. Similar views were picked up regarding the limited amount of cross-fertilization between the two countries. This was acknowledged by the UNIDO-RO and, although it was explained that this was to be addressed in the final stages of the Project, no tangible evidence of this cross-fertilization was documented.

**Institutional Sustainability**

The MTE noted deficiencies that raised concerns as to the future sustainability of the project and although implementation of the project was not completed at that time, the final activities carried



out – with some never completed – did not increase the likelihood of sustainability and continued impact of the project.

The project has made some progress towards laying the foundations for institutional sustainability, such as developing and taking steps to put in place enabling policy frameworks, and building the capacity of the Government. However, progress towards outcomes and eventual impact is at the time of this IFE by no means certain.

This would appear to be due to lack of clarity regarding sustaining capacity and strengthening coordination between and within government for on-the-ground enforcement and remediation, but also with other stakeholders, including but not limited to universities, the private sector and NGOs. As already mentioned, the project has concentrated its institutional capacity building efforts among Government ministries and agencies, and furthermore, involved several research / University centers. Whilst this has been appropriate to build knowledge and capacity for enforcement and identification of contaminated sites, the evaluation team noted that many key personnel in Ghana and Nigeria have either retired or will be retiring. Hence, there is a considerable risk that capacity will be lost in the short to medium term.

Moreover, the effectiveness and quality of the training provided by Cardiff-GRC and the University of British Columbia have been eroded due to in making the GRCs and transfer labs operational. The evaluation mission revealed, most staff that received training will likely need refresher training to operate the transfer and GRC labs.

### **Financial and Economic**

The project design was clear that financial and economic sustainability is dependent on involvement of Government (as enforcers and providers of services (in part)) and the private sector – as buyers of information (results of the toolkit used to identify contaminated sites).

Ultimately, under the polluter-pays principle the private sector would play a major role in contaminated site remediation. However, as of yet financial and economic sustainability of the project is uncertain. This is because the GRCs are not yet fully operational - although business plans have reportedly been finalized and approved - and most importantly, the private sector has not been involved during the implementation.

The operational GRCs, cost-effective toolkit and enforcement needs have not come together to ensure financial and economic returns. There are some opportunities for the project, such as marketing the broader applicability of the toolkit for identification and assessment of any contaminated site / substances, and linking legislative development to planning / development regulations (e.g., EIAs). However, these linkages still have to be made.

### **Socio-Political**

The evaluation limited itself largely to assessing social sustainability, as it was not possible to get a clear indication of political sustainability. However, it is clear that POPs is one of the many environmental priorities of both Governments, as it sits broadly within hazardous waste and waste management issues.

Social sustainability of the project, like institutional, financial and economic, is uncertain. This is mainly because the project has not begun to engage or address wider socio-economic and public implications of POPs hazards and pollution. The project is mainly operating within the field of Government and academia (e.g., Universities of Ibadan and Lagos in Nigeria). It was noted both during interviews and the field visits that the focus has been on more visible outputs (policy, toolkit and GRCs) and less on socio-economic, health and awareness raising aspects (as already noted – see Outcomes 3 – 7). The project has missed opportunities in terms of implementation, and sequencing of implementation, of the different components, which undermines the long-term socio-economic sustainability of the project.

### **Ecological**

The ecological sustainability of the project is uncertain. The lack of awareness and EHS training, particularly with regard to servicing electrical transformers within the public utilities, continue to threaten the Lagos Lagoon (Nigeria) and also Accra area. Releases of PCBs are continuing. The project has done little to reduce environmental risks despite being aware of less than satisfactory conditions.

## ***E. Assessment of Monitoring, Evaluation Systems & Project Management***

### ***M&E design and implementation, Budgeting and Funding and, Monitoring of Long Term Changes***

As regards Monitoring and Evaluation, the LFA specifically states that the project outputs will establish M&E Guidelines and baseline indicators, organize 3 M&E indicator consultation workshops, and establish an evaluation and review-mechanism drafting committee. In addition, it mentions that active involvement in GEF annual PIR will also be promoted and that it will proactively collect and analyze M&E activities from all project outputs.

Although these are key elements of a successful M&E plan, both at the time of writing of the MTE as of the IFE, it appears that all opportunities afforded by their timely implementation have been missed, as the missions could identify no concrete progress towards this output.

On the positive side, a pre-mid-term evaluation was conducted and results shared with the principal stakeholders of the project; however, this did not lead to any significant changes in the project implementation that could be documented by the evaluation team.

As regards budgeting, it appears that no resources or very limited ones were used to implement the M&E system although the Project Document specifically states that the M&E GEF Budget is US\$ 100,000 (excluding UNIDO staff costs, covered by Agency Fee).

### **Project Management**

This project was tailored on the NIP that confirmed the POPs issue as a priority and also on previous work carried out which had led the country to identify a series of contaminated sites. The UNIDO Country Office was mandated to coordinate the preparatory process and identified the necessary regional expertise to develop the project. Cardiff was identified to provide expertise regarding best practices and capacity building. Further to a series of validation workshops (Policy and Technology), country experts developed a project proposal that was presented for an approval expected for Q3-2006. However, due to internal issues at the GEF and change of leadership in particular, this approval was delayed.

As planned for in the Project Document, the infrastructure has been set up and is operational, both at the regional and local level, for the implementation of project activities. The project implementation is under the oversight of a Regional Ministerial Committee (RMC) to ensure that high-level importance is given to policy and legal objectives of the project. 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 to then reach an agreement on enforcement at national and regional levels.

The project is implemented through NCUs set up in Ghana and Nigeria in 2008 under the supervision of a RCU set up in the UNIDO Regional Office (RO), Abuja, Nigeria. UNIDO covers the salary of the Regional Coordinator, office space and at least one secretary under its field operational budget. The Government departments will deal with NCUs assigned to them on a national basis.

While the RCU took care of the day-to-day functioning of the project, the PSC supervised the overall implementation of the project and recommended any modifications or change of work plan including budget provisions.

Although the PSC was scheduled to meet twice a year - once in Nigeria and once in Ghana - and, in addition was expected to meet at UNIDO or in an institution in Europe that provides technical training during the project implementation, 5 meetings in total took place since 2008 in Cardiff, at the Geo-Environmental Research Centre <sup>24</sup>.

The Regional Ministerial Committee met once (2010) and a second meeting programmed for 2011 never took place for reasons described as related to scheduling.

### **UNIDO HQ Based Management**

UNIDO was responsible for the overall management of the project and its funds. It reportedly assisted the governments in the execution of the Project through the provision of assistance at key phases of project implementation, in the disbursement of funds necessary for the recruitment of international experts, and other related international expenditures and the IFE ET did not document any instances where HQ based management would not have performed as expected. However, comments were received regarding the insufficient presence on the ground of a CTA (this has been covered above) and although this is not directly “HQ based management”, this affected the timely and complete implementation of the Project.

***Implementation approach. Is the implementation approach chosen different from other implementation approaches applied by UNIDO and other agencies? Does the approach comply with the principles of the Paris Declaration? Does the approach promote local ownership and capacity building? Does the approach involve significant risks?***

The implementation approach followed is similar to others however in this case only feeble attempts were made, during the life of the Project, to seek to establish, develop, pursue and closely monitor (to assess progress), collaborative efforts with Government counterparts and local implementing partners. Although the usual combination of agency execution was followed (direct provision of services by UNIDO with elements of national execution through sub-contracts), promotion of local ownership and capacity building were not prioritized.

In this sense, as regards the Paris Declaration, only one of the principles has somewhat been achieved (1, Ownership). For Principles 2, 3, 4 and 5 (Alignment, Harmonization, Results and, Mutual Accountability) the IFE ET can only conclude that the implementation approach followed does not appear – as of yet – to comply in any meaningful way with any of these.

### ***F. Assessment of processes affecting attainment of project results***

***Preparation and readiness. Were the project’s objectives and components clear, practicable, and feasible within its time frame? Were the capacities of the executing institution(s) and its counterparts properly considered when the project was designed? Were lessons from other relevant projects properly incorporated in the project design? Were the partnership arrangements properly identified and roles and responsibilities negotiated prior to project approval?***

In light of the results and risks discussed above, it is estimated that the project objectives and components were clear, practical and achievable within the established time frame.

The evaluation team was not able to find evidence of structured attempts to coordinate with the private sector (Oil and gas / Mining / other Industrial sectors), and only limited participation from state owned utilities was documented.

Other than attempts to involve the NGO community in the design consultation and initial implementation of the project, the evaluation team was not able to document any structured attempts to coordinate with grass roots level organizations / communities or NGOs.

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<sup>24</sup> PSC Meetings: 1<sup>st</sup> (Feb 2008), 2<sup>nd</sup> (October 2009), 3<sup>rd</sup> (October 2010), 4<sup>th</sup> (July 2011) and, 5<sup>th</sup> and last PSC (July 2012)

The Project would have gained from better coordination with these stakeholders, as well from building bridges to existing efforts/initiatives, not only at regional level but also at the national level, when/where complementary efforts are already under way. Examples of these are:

- Ghana - Environmental Rating and Disclosure Programme (AKOBEN) entering 2nd phase
- Nigeria - PCB pilot decontamination unit to be sited at University of Ibadan (Funded by the Government - \$1.5m)
- GEF-UNDP CB for PCB elimination (Volta River Authority and Ghana Oil Company) under implementation
- GEF/UNDP Project - Less Burnt for a Clean Earth: Minimization of Dioxin Emissions from Open Burning Sources in Nigeria (U-POPs emissions)

In addition, linkages to the SGP to develop awareness-raising projects & build capacity on POPs could provide a rapid and effective way to deliver some of the awareness-raising components, as well as health and safety information to those on the front line of this issue, hence contributing to the longer term sustainability of the project.

***Were counterpart resources (funding, staff, and facilities), and adequate project management arrangements in place at project entry?***

No information to the contrary was received.

***Country ownership/drivenness. Was the project concept in line with the sectoral and development priorities and plans of the country—or of participating countries, in the case of multicountry projects? Are project outcomes contributing to national development priorities and plans?***

The evaluation mission was able to ascertain that country ownership is satisfactory; however, the evidence of this was limited to government and academic departments and institutions directly involved with the project.

Ownership was more developed in Nigeria where the Government contributed over US\$1 million of co-finance for the project. In Ghana, changes of personnel within the EPA, with the retirement of the project coordinator (ED of the EPA)

Although this makes the project relevant to involved stakeholders, and helps to document ownership, the link between research and knowledge, and between awareness and practice, is not made to allow for Project outcomes/benefits to be demonstrated and sustained.

***Were the relevant country representatives from government and civil society involved in the project? Did the recipient government maintain its financial commitment to the project? Has the government—or governments in the case of multi-country projects—approved policies or regulatory frameworks in line with the project's objectives?***

As has been discussed above, although a good level of representation was achieved as regards the government, this was not achieved with equal success for industry or NGOs. did Co-funding is available both at central and local governmental level where awareness is high and funds are made available to promote investment in infrastructure for monitoring (e.g. laboratories); the University has even agreed to finance part of the costs to keep GRC running; however, should other elements not fall into place (successfully implemented business plans, backed by strong and enforced legislation), their longer term sustainability is at the very least questionable.

***Did the project involve the relevant stakeholders through information sharing and consultation and by seeking their participation in project design, implementation, and M&E? For example, did the project implement appropriate outreach and public awareness campaigns? Did the project consult with and make use of the skills, experience, and knowledge of the appropriate government entities, nongovernmental organizations,***

**community groups, private sector entities, local governments, and academic institutions in the design, implementation, and evaluation of project activities? Were perspectives of those who would be affected by project decisions, those who could affect the outcomes, and those who could contribute information or other resources to the process taken into account while taking decisions? Were the relevant vulnerable groups and powerful supporters and opponents of the processes properly involved?**

The implementation and enforcement capacity in terms of human resources, offices and related infrastructure, administrative system and management structure already exists and is operational; however, there are constraints placed on this capacity by the limited number of staff involved, the number of projects they manage, or their lack of involvement (example of the CTA). Overall capacity was found by the mission to be diffuse and lacking coordination with other departments. The loss of, or leaking, capacity (including political changes & deployment/retirement of staff) is estimated to represent a constant risk to the successful and longer-term sustainability of the project, which must also be supported by development and deployment of strong awareness and basic EHS information.

Another element to ensure sustainability is that of continued involvement of all stakeholders and in particular, decision makers. As mentioned before, this varies widely as, for example, in one case a Ministry is not yet actively involved – “We have not done much on POPs management so far” although on a positive note, another ministry mentioned being involved in this “collaborative” project and “looked forward to training on tool kit”.

Overall, the evaluation team was not able to identify public/stakeholder awareness at the levels required to ensure the support of the project’s long-term objectives. In conclusion, and as per the above, the rating for sustainability of the project is therefore moderately unsatisfactory.

**Financial planning. Did the project have the appropriate financial controls, including reporting and planning, that allowed management to make informed decisions regarding the budget and allowed for timely flow of funds? Was there due diligence in the management of funds and financial audits? Did promised co-financing materialize?**

There were no reports of audits having been prepared, nor were there any issues raised as regards the materialization of timely flow of funds or cofinancing.

**UNIDO supervision and backstopping. Did UNIDO staff identify problems in a timely fashion and accurately estimate their seriousness? Did UNIDO staff provide quality support and advice to the project, approve modifications in time, and restructure the project when needed? Did UNIDO provide the right staffing levels, continuity, skill mix, and frequency of field visits for the project? Co-financing and project outcomes and sustainability. If there was a difference in the level of expected co-financing and the co-financing actually realized, what were the reasons for the variance? Did the extent of materialization of co-financing affect project outcomes and/or sustainability, and, if so, in what ways and through what causal linkages?**

As was raised in previous parts of this evaluation, it is clear from the assessment that there was a weak participation in the field, and that stronger technical support would have been required to ensure that an adequate understanding of progress, products and outcomes of the project were obtained, thus enhancing needs assessments.

**Delays and project outcomes and sustainability. If there were delays in project implementation and completion, what were the reasons? Did the delays affect project outcomes and/or sustainability, and, if so, in what ways and through what causal linkages?**

This was covered throughout the evaluation above. In summary although delays did not affect sustainability, the fact that the Project was not fully completed (M&E, Socio Economic analysis, fully tested BPs for the GRCs, etc.) can but only in part, be attributed to the delays.

Criterion	Evaluator's Summary Comments	Evaluator's Rating
<b>Attainment of project objectives and results (overall rating) Sub criteria (below)</b>		<b>MU</b>
Effectiveness	Considered only partially effective as some activities were not completed	<b>MU</b>
Relevance	Relevant to national public sectors, UNIDO and the GEF. Less relevant to private sector. Opportunities to link to other initiatives and stakeholders only partially successful	<b>MS</b>
Efficiency	M&E, capacity building and assessment of socio-economic impact were either partially carried out, or not at all	<b>U</b>
<b>Sustainability of Project outcomes (overall rating) Sub criteria (below)</b>		
Financial	Business plans to help demonstrate potential sustainability have not been deployed and tested sufficiently, yet	<b>MU</b>
Socio Political	Very limited evidence of developed capabilities	<b>MU</b>
Institutional framework and governance	Progress noted, however achievement of outcomes/eventual impacts not certain	<b>MU</b>
Ecological	The project has not contributed to reducing the effects of POPs on the environment, yet	<b>MU</b>
<b>Monitoring and Evaluation (overall rating) Sub criteria (below)</b>	The Project did not conduct adequate M&E. The regional M&E component was not implemented	<b>HU</b>
M&E Design	Logframe contained only outputs and no high-level (impact) targets. The link between outputs and outcomes was unclear	<b>U</b>
M&E Plan Implementation (use for adaptive management)	UNIDO and RCU placed emphasis on supervision orientated reporting as opposed to developing a management tool to track progress and address deficiencies – as described in the ProDoc	<b>HU</b>
Budgeting and Funding for M&E activities	Budgeting was sufficient	<b>S</b>
<b>UNIDO specific ratings</b>		
Quality at entry	Limited involvement of stakeholders led to low project buy-in and awareness	<b>MS</b>
Implementation approach	Priority given to one of the components (toolkit) and linear implementation have led to delays	<b>MU</b>
UNIDO Supervision and backstopping	CTA role has been weak (not enough time allotted). RCU had only limited amount of time for this project (+-20%)	<b>MS</b>
<b>Overall Rating</b>		<b>MU</b>

## RATING OF PROJECT OBJECTIVES AND RESULTS

- Highly Satisfactory (HS): The project had no shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.
- Satisfactory (S): The project had minor shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.
- Moderately Satisfactory (MS): The project had moderate shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.
- Moderately Unsatisfactory (MU): The project had significant shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.
- Unsatisfactory (U) The project had major shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.
- Highly Unsatisfactory (HU): The project had severe shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.

**Please note:** Relevance and effectiveness will be considered as critical criteria. The overall rating of the project for achievement of objectives and results **may not be higher** than the lowest rating on either of these two criteria. Thus, to have an overall satisfactory rating for outcomes a project must have at least satisfactory ratings on both relevance and effectiveness.

## RATINGS ON SUSTAINABILITY

Sustainability will be understood as the probability of continued long-term outcomes and impacts after the GEF project funding ends. The evaluation will identify and assess the key conditions or factors that are likely to contribute or undermine the persistence of benefits beyond project completion. Some of these factors might be outcomes of the project, i.e. stronger institutional capacities, legal frameworks, socio-economic incentives /or public awareness. Other factors will include contextual circumstances or developments that are not outcomes of the project but that are relevant to the sustainability of outcomes.

### Rating system for sustainability sub-criteria

On each of the dimensions of sustainability of the project outcomes will be rated as follows.

- Likely (L): There are no risks affecting this dimension of sustainability.
- Moderately Likely (ML). There are moderate risks that affect this dimension of sustainability.
- Moderately Unlikely (MU): There are significant risks that affect this dimension of sustainability
- Unlikely (U): There are severe risks that affect this dimension of sustainability.

All the risk dimensions of sustainability are critical. Therefore, overall rating for sustainability will not be higher than the rating of the dimension with lowest ratings. For example, if a project has an Unlikely rating in either of the dimensions then its overall rating cannot be higher than Unlikely, regardless of whether higher ratings in other dimensions of sustainability produce a higher average.

## RATINGS OF PROJECT M&E

Monitoring is a continuing function that uses systematic collection of data on specified indicators to provide management and the main stakeholders of an ongoing project with indications of the extent of progress and achievement of objectives and progress in the use of allocated funds. Evaluation is the systematic and objective assessment of an on-going or completed project, its design, implementation and results. Project evaluation may involve the definition of appropriate standards, the examination of performance against those standards, and an assessment of actual and expected results.

The Project monitoring and evaluation system will be rated on 'M&E Design', 'M&E Plan Implementation' and 'Budgeting and Funding for M&E activities' as follows:

- Highly Satisfactory (HS): There were no shortcomings in the project M&E system.

- Satisfactory(S): There were minor shortcomings in the project M&E system.
- Moderately Satisfactory (MS): There were moderate shortcomings in the project M&E system.
- Moderately Unsatisfactory (MU): There were significant shortcomings in the project M&E system.
- Unsatisfactory (U): There were major shortcomings in the project M&E system.
- Highly Unsatisfactory (HU): The Project had no M&E system.

“M&E plan implementation” will be considered a critical parameter for the overall assessment of the M&E system. The overall rating for the M&E systems will not be higher than the rating on “M&E plan implementation.”

All other ratings will be on the GEF six point scale.

HS	= Highly Satisfactory	Excellent
S	= Satisfactory	Well above average
MS	= Moderately Satisfactory	Average
MU	= Moderately Unsatisfactory	Below Average
U	= Unsatisfactory	Poor
HU	= Highly Unsatisfactory	Very poor (Appalling)



## CHAPTER IV - Conclusions, Recommendations and Lessons learnt

### ***Assessment of processes affecting attainment of project results, conclusions and recommendations***

Based on the evidence, the overall assessment of the implementation status and progress towards outcomes of the project is **Moderately Unsatisfactory**.

Project implementation has not kept the initial promise of the design in terms of the involvement of a broad range of stakeholders (public, private, civil society), which is critical to building socio-economic and institutional sustainability beyond the end of the project.

The project developed some synergies with the GCLME Project, for the IMS component, and this represents an efficient and cost-effective approach. However, more should have been done to build synergies with UNDP and World Bank PCB projects under implementation in Ghana and Nigeria. This would have been particularly important for ensuring maximum use be made of the toolkit and for building institutional (enforcement) and financial sustainability of Government institutions and the GRCs.

The project did not pay sufficient attention to building awareness of the dangers of POPs (PCBs) at the level of public utility workers (those at risk of direct contact), charged with servicing, storing and disposing of PCBs. Hence it is highly likely that there is currently an unacceptably high risk of continued PCB discharges into the environment at known contaminated sites.

Ghana and Nigeria have put in place draft legislation / policies, which are the foundation for any action to identify, assess and remediate contaminated sites. In addition, GRCs have been established and progress has been made towards establishing transfer laboratory services in both countries. However, sustainability of the laboratories is not assured because of uncertainties regarding financial and institutional factors. This can only be overcome once the Business Plans are tested and fully implemented.

The toolkit has not been sufficiently adapted to local [national] contexts and does not reflect the limited capacity and resource constraints faced in developing countries. This said, it is being widely disseminated and promoted, and experience on its use is being shared with training workshops contributing to preparation of African experts in different regions (COMESA/SADC/ECOWAS).

Project M&E did not meet design intentions and was therefore not available to be used to guide project implementation towards outcomes and impacts.

### ***Recommendations UNIDO***

5. UNIDO should have better supported the Governments of Ghana and Nigeria in building relationships with the private sector (Energy, oil and gas, mining, agriculture and industrial sectors) - alongside the current focus on state-owned power utilities - to build financial and economic sustainability for the GRCs and, use of the toolkit.
  - This could have been achieved by enlarging the composition of the PSC to include interested private sector partners.
6. UNIDO should have better supported the Governments of Ghana and Nigeria and led the way on implementing awareness and EHS campaigns within the public power utilities and with adjacent communities (e.g., adjacent to Lagos Lagoon) to warn of the dangers of POPs contamination and clearly explain measures to reduce risks of exposure.
  - The project should have developed and followed through with a concerted effort to work with the public utilities to ensure opportunities to release POPs are minimized and foundations laid for remediation of contaminated sites.

7. UNIDO Regional Office in Abuja and the national office in Ghana should have established coordination mechanisms with the GEF SGP (administered by UNDP) to tap into existing NGO capacities in POPs awareness raising and community-based action.
  - In particular, as the SGP has a number of completed / ongoing POPs projects with NGOs in Nigeria and Ghana to develop awareness-raising projects & build capacity on POPs. This would have provided a rapid and effective way to deliver some of the awareness-raising components, and health and safety information, to those on the front line of this issue, thus contributing to the sustainability of the project.
  - The possibility of channeling project funds through the SGP should have been fully explored (possibly pilot projects with pesticides and POPs) to ensure that the deployment of the different components was effective and of relevance to the different segments of the population.
8. UNIDO should have facilitated a longer term deployment of the CTA (5 – 6 months) during the final phase of the project to provide not only specialized chemicals-related knowledge, but also managerial guidance to complete:
  - The regional M&E system;
  - The adaptation, testing and deployment of the toolkit;
  - The GRC business plans (fine tuning and full deployment) and the building and strengthening of relations with the private sector;
  - The socio-economic, health and environmental studies (coordinating with the Ministries of Health);
  - Awareness-raising activities.

### **Recommendations Government (Nigeria & Ghana)**

5. The overall government capacity for implementation and for enforcement should have been strengthened
  - This not only in terms of offices and related infrastructure, administrative systems and management structures, but also in terms of human resources where the loss of, or leaking capacity (including political changes & deployment/retirement), as well as limited number is estimated to represent a constant risk to the successful and longer-term sustainability of the project.
6. Awareness-raising and sensitization of workers, generally unaware of the socio-economic and health dangers of mishandling and inappropriate disposal of PCBs<sup>25</sup>, should have been actively pursued to mitigate the continued negative health and environmental impacts. This would have directly contributed to reducing the effects of POPs on human health and the environment, the highest-level output (impact) the project could hope to achieve.
  - The public power utilities should have been first in line to benefit from these efforts, followed by engaging constituencies, consulting and educating these with simple, graphical and gender-balanced materials (in local languages).
7. Mechanisms should have been put in place to enshrine the use of the toolkit in policies and legal frameworks so that relevant stakeholders such as industry would have no choice in its application. This would have contributed to the overall sustainability of the GRC and of the system as a whole.

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<sup>25</sup> The evaluation mission was told PCBs oils were routinely dumped on the grass adjacent to the workshop and 4 – 5 meters from the Lagos Lagoon.

- The wider applicability of the toolkit to assess contamination from a range of hazardous wastes in addition to POPs would have opened additional possibilities and helped to position it as an indispensable tool, applicable in diverse contexts – and the Governments should have worked towards this through appropriate regulatory measures and incentives.
8. Governments should have worked with UNIDO to forge synergies with the UNDP and World Bank PCB projects, as well as with existing power sector reform projects (World Bank). Tackling the issue of PCBs is largely about cleaner production of energy, and has to be linked to power sector reform.

### **Lessons Learnt**

The following are considered to be valuable lessons to be learnt from the missed implementation opportunities of the project:

- Implementation of an M&E system should not be considered an optional requirement. In its absence, the methodical and structured implementation, the close tracking of progress - redressing as necessary – and, the successful achievement of all expected outputs are unlikely to take place. This in turn compromises the expected outcomes and the longer term impacts envisioned during the design and inception phases;
- Sequencing of implementation of the different components could have led to a more coherent set of outputs and eventually to a series of near-simultaneous outcomes;
- Rapid implementation of key components (such as the IMS, awareness raising, etc.) would have helped to build awareness and support changes in behavior among the public and workers exposed to and/or using POPs;
- Presence of a CTA is essential not only to provide technical backstopping, but also in support of the role played by the RCU on the ground;
- Absence or limited presence and guidance from a CTA - a key figure for successful implementation of projects - can significantly contribute to the quality of the final results;
- Continuity planning is essential in order to avoid delays at the national level, when project figureheads retire;
- Not having a decentralized task manager in the region (Managing from Vienna) can contribute to delays in implementation.

## Annexes

### ***Terms of reference for the Independent Final Evaluation***

Word version to be provided by UNIDO