### **TERMINAL EVALUATION REPORT**

### **UNDP/GEF PROJECT**

### LESS BURNT FOR A CLEAN EARTH: MINIMIZATION OF DIOXIN EMISSION FROM OPEN BURNING SOURCES IN NIGERIA

PROJECT TITLE	Less Burnt for a Clean Earth: Minimization of dioxin emission from open burning sources in Nigeria
UNDP PROJECT ID	75041; Atlas NGA 10; Award 59851
GEF ID	3804
UNDP PIMS ID	4221
FUNDING SOURCE	GEF Trust Fund
COUNTRY	Nigeria
REGION	Africa
FOCAL AREA	POPs
OPERATIONAL PROGRAM	
IMPLEMENTING AGENCY	United Nations Development Programme (UNDP)
EXECUTING AGENCY	Federal Ministry of Environment
OTHER PARTNERS	Kano State Government & Anambra State Government

### **EVALUATORS:**

John Davison Associates (D.B.Omotosho/E.O.Oladipo) (National) R. Abrokwa-Ampadu (International)

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The Evaluation Team

# ACRONYMS

ABU	Ahmadu Bello University Zaria
ANSG	Anambra State Government
APR	Annual Project Report
ASWAMA	Anambra State Waste Management Authority.
AWP	Annual Work Plan
BAT/BEP	Best Available Technology/Best Environmental Practice
CCAC	Climate and Clean Air Coalition
CFC	Chlorofluorocarbons
DEX	Direct Execution
DFID	Department for International Development (UK)
EPA	Environmental Protection Agency
FEPA	Federal Environmental Protection Agency
FMEnv	Federal Ministry of Environment
g	gramme
GEF	Global Environment Facility
ha	hectare
HCB	Hexachlorobenzene
IMSWM	Integrated Municipal Solid Waste Management
IWM	Integrated Waste Management
IWMS	Integrated Waste Management Strategy
JDA	John Davison Associates
LBCE	Less Burnt for a Clean Earth
LBCEP	Less Burnt for a Clean Earth Project
LGA	Local Government Area
MAW	Municipal and Agricultural Waste
MDGs	Millennium Development Goals
MTR	Mid-Term Review
MWM	Municipal Waste Management
NESREA	National Environmental Standards& Regulations Enforcement Agency
NEX	National Execution
NIP	National Implementation Plan
NGO	Non-Governmental Organization

NPP	National CFC Phase-Out Plan
PCBs	Polychlorinated biphenyls
PIR	Project Implementation Review
PMTR	Project Mid-Term Review
PMU	Project Management Unit
POPs	Persistent Organic Pollutants
ProDoc	Project Document
PSC	Project Steering Committee
PSP	Private Sector Participant
REMASAB	Refuse Management and Sanitation Board (Kano State)
SDG	Sustainable Development Goals (Global Goals)
TE	Terminal Evaluation
TEQ	Toxicity Equivalence
TEQ/a	Toxicity Equivalence per annum
TOR	Terms of Reference
UNDP	United Nations Development Programme
UNDP CO	UNDP Country Office
UNEP	United Nations Environment Programme
UPOPs	Unintentional Persistent Organic Pollutants
USD	United States Dollar
WMA	Waste Management Authority

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## **EXECUTIVE SUMMARY**

#### Introduction

1. This document represents the draft report of the terminal evaluation of the project "Less Burnt from Clean Earth: Minimization of Dioxin Emission from Open Burning Sources in Nigeria" as required for UNDP-supported GEF-financed projects. The project was a collaborative effort of the United Nations Development Programme (UNDP) and the Federal Ministry Environment on behalf of the Government of Nigeria with funding from the Global Environment Facility (GEF). It sought to improve general chemicals management in Nigeria, particularly in the disposal stage of hazardous waste streams typically found in municipal waste. The principal outcome of the afore-mentioned goal was to *enhance human health and environmental quality by reducing releases and exposure to unintentional POPs originating from unsustainable municipal and agricultural waste operations*.

2. The Project was implemented in two states, namely Kano State in the north of the country and Anambra State in the south. The main components of the project on which the activities were focused were the following:

- Legislative strengthening and policy development;
- Reduction of UPOPs emissions through introduction of new practices and approaches in municipal waste handling;
- Reduction of UPOPs emissions from burning of farm fields in preparation for planting
- The project also addressed capacity building as part of its activities.

*3.* The project had a total estimated budget of USD 24,518,737 that was financed through GEF grant funding of USD 4,708,000 leveraged by co-financing expected to be approximately USD 19,810,737. The co-financing, mostly in kind was largely attained.

4. The project was executed by the Federal Ministry of Environment (FME) under a National Coordinator based at the Department of Pollution Control of the FME. UNDP Nigeria Country Office was involved in guiding project implementation and its evaluation. The project implementation was overseen by a Steering Committee comprising (i) representatives of the Federal Ministries of Environment, Agriculture and Finance; (ii) representatives of Kano State Ministries of Environment and Agriculture; (iii) representative of Anambra State Ministry of Environment, (iv) an agronomist from the Agricultural Research Council of Nigeria; (v) a waste management expert and (v) representative of UNDP, Nigeria (observer).

5. The Project was implemented over a period of 4 years, starting from April 2011 and ending December 2015. A Mid-Term Review was undertaken in August 2013 to provide a full overview of the implementation progress up to that time and propose corrective measures, if any, for the remainder of the Project. This Terminal Evaluation provides a professional assessment of project performance during its 4-year implementation, with particular reference to the achievement of its target objectives and outcomes.

### Table E.S.1: Project Summary Table.

Project Title: Less from	Burnt for a Open Burni	Clean Earth: Mir ng Sources in Nig	nimization of Dio geria	xin Emission	
GEF Project I.D:	3804		<u>At Endorsement</u> (US\$)	At Completion (US\$)	
UNDP Project ID:	PIMS 4221 Atlas Project 75041	GEF Financing:	\$4,150,000	4,150,000	
Country:	Nigeria	IA/EA own:	Nigeria's Federal Ministry of Environment		
Region:	Africa	Government	\$19,700,736.	11,050,000	
Focal Area:	POPS	Other: UNDP Regular TRAC	\$100,000.	\$100,000.	
FA Objectives, (OP/SP):		Total Co-financing:	\$19,800,736.	11,150,000	
Executing Agency:	Federal Ministry of Environment	Total Project Cost:	\$23,950,736.	15,300,000	
Other Partners involved:	UNDP, Kano & Anambra States	ProDoc Signature (date project began): 30 <sup>th</sup> July 20 <sup>th</sup> April 2011			
		(Operational Closing Date:	Proposed: 29 <sup>th</sup> July 2014	Actual: 31 <sup>st</sup> Dec 2015	

6. This final project evaluation was initiated by UNDP Nigeria Country Office. It provides an in-depth reflection of project progress and priority actions for future UNDP-GEF projects. It also provides the project managers, UNDP Nigeria Country Office and UNDP-GEF Unit with complete and convincing evidence in determining the success of the project and – based on the project achievements - in providing guidance to future UNDP-supported projects in the field of Unintended Persistent Organic Pollutants (UPOPs). This evaluation is based on a desk review of the project document, relevant reports, and on interviews with project staff and key project beneficiaries. An evaluation matrix based on the project logical framework was used to guide the entire data gathering and analysis process. The project outcomes were rated based on Rating Scales for *Overall Result (Impact), Relevance, Effectiveness, Efficiency, and Sustainability* as well as project *Execution and Monitoring and Evaluation* provided under the project evaluation guidelines. These are indicated in Box E.S.1 below.

	BUX E.S.I	
RA	TING SCALES	
<ul> <li>Ratings for Outcomes, Effectiveness, Efficiency, Replicability, M&amp;E, I&amp;E</li> <li>Execution:</li> <li>6: Highly Satisfactory (HS): no shortcomings</li> <li>5: Satisfactory (S): minor shortcomings</li> <li>4: Moderately Satisfactory (MS): significant shortcomings</li> <li>3: Moderately Unsatisfactory (MU): significant shortcomings</li> <li>2: Unsatisfactory (U): major problems</li> <li>1: Highly Unsatisfactory (HU): severe problems</li> </ul>	Sustainability ratings: 4: Likely (L): negligible risks to sustainability 3: Moderately Likely (ML): moderate risks 2: Moderately Unlikely (MU): significant risks 1: Unlikely (U): severe risks	Relevance ratings: 2: Relevant (R) 1: Not relevant (NR) Impact Ratings: 3: Significant (S) 2: Minimal (M) 1: Negligible (N)

7. In addition to the above parameters, and in view of the critical nature of socio-economic and cultural aspects of such projects, the Evaluation Team added two other parameters that would reflect the communal and stakeholders efforts and other socio-economic trade-offs of the project. These are *Replicability* included in the rating scales, and *Country Driveness*, discussed as one of the factors influencing project outcomes.

### Main Findings:

8. The summary of the main findings of the terminal evaluation of the LBCE project based on the recommended rating scales are shown in Table. E.S.2 below. Detailed discussions of the ratings of the project may be found in Chapter 3 of this report. The outcomes are further elaborated in this section.

Evaluation Ratings:			
1. Monitoring and Evaluation	Rating	2. IA & EA Execution	Rating
M&E design at entry	S	Quality of UNDP Implementation – Implementing	S
		Agency (IA)	
M&E Plan Implementation	S	Quality of Execution - Executing Agency (EA)	HS
Overall quality of M&E	S	Overall quality of Implementation / Execution	HS
3. Assessment of Outcomes	Rating	4. Sustainability	Rating
Relevance	R	Financial resources:	ML
Effectiveness	S	Socio-political:	L
Efficiency	S	Institutional framework and governance:	ML
Replicability	S	Environmental:	n/a
Overall Project Outcome Rating	S	Overall likelihood of sustainability:	ML
Impact	S		

Table E.S.2: LBCE Project Implementation Rating: Summary

9. The project achieved its basic project objectives, even surpassing set targets in some cases, as could be seen in Table E.S.3. In Onitsha at the close of project, UPOPs emissions from open burning of **collected** and **uncollected** wastes had dropped by 18.27% and 75.5% respectively from their 2012 levels, while for Kano the corresponding figures are 48.26% and 96.27% respectively.

Table E.S.3: LBCE Project: Levels of UPOPs Reduction Achieved by Project.

	UPOPs Red	luction Tar	gets and Lev	els Achieved				
Waste Burning		K	ano		Onitsha			
Activity	Target		Achieved		Target		Achieved	
	Per Cent	g TEQ/a	Per Cent	g TEQ/a	Per Cent	g TEQ/a	Per Cent	g TEQ/a
Open Burning of Collected Waste at Dumpsites	20	78.8	48.26	-90.24	20	19	18.27	-30.05

Open Burning of Uncollected Waste at Dumpsites	100	78	96.27	-119.37	100	7.12	75.52	-31.01
	Per Cent	l g TEQ∕a	Per Cent	l g TEQ/a	Per Cent	l g TEQ/a	Per Cent	l g TEQ/a
Open Burning of Cropland	N/A	5.5	71.53	-72.25	N/A	N/A	N/A	N/A

10. The project, which was found to be relevant internationally and nationally was well implemented. Assessment based on the required criteria showed satisfactory performance in effectiveness, efficiency, replicability and impact. Monitoring and Evaluation (M&E) implementation was also rated satisfactory and overall quality of implementation/execution, highly satisfactory.

### Conclusions:

11. The conclusions coming out of the study are summarized in table E.S.4 below and are discussed in greater details in section 4.1 of this report.

	SUMMARY CONCLUSIONS
1	Project document well prepared. Logical Framework provided good guidance for project implementation. The document however has some gaps in its consideration of an "exit strategy" as it relates to sustainability.
2	The project ran smoothly and achieved the basic project objectives, even surpassing set targets in some cases. In Onitsha, UPOPs emissions from open burning of <b>collected</b> and <b>uncollected</b> wastes dropped by 18.27% and 75.5% respectively, while for Kano the corresponding figures are 48.26% and 96.27% respectively. Also in Kano, the emission reduction from open burning of coarse grain cropland dropped by as much as 71.53% from its 2012 level. All of these are very impressive outcomes.
3	The Project Steering Committee (PSC) performed well their oversight function of giving strategic guidance to the project.
4	The Project Management Unit (PMU) and project execution units in the two partner states conducted required tasks well and had high standards. Co-ordination and risk management expertise of the PMU was good and was used to tackle problems of implementation delay in Anambra State.
5	The management of fund disbursement to project by the UNDP CO enhanced the success of project implementation.
6	The project produced some notable outcomes and impacts on the local communities. It improved the socio- economic conditions of farmers, cattle rearers, and built capacities of both management and local farmer/cattle rearer stakeholders.
7	"Waste" was given a new definition by farmers in Kano, who now see their farm "waste" as a "resource" which they will not now freely give away without it being paid for.
8	NESREA replicated the project in Ilokun and Erinfun/Emirin areas of Ado-Ekiti in Ekiti State and Rumuokpolu Elizu area of Port Harcourt in Rivers State.
9	Some Development Partners, including the World Bank and DFID, have indicated interest in supporting large scale up-scaling of project.

 Table E.S.4: LBCE Project: Summary Conclusions

10	Based on the achieved UPOPs release reduction at the two pilot sites, it is quite feasible/possible with future
	activities to reduce, nationwide, municipal waste burning by 20% with a corresponding 20% reduction in
	UPOPs releases from open burning of MAW, which may translate to about 1,060 g I-TEQ a year.

### Lessons Learned:

12. The lessons learnt from the Terminal Evaluation are summarized in Table E.S.5 below, which are also discussed in greater details in section 4.2.

	LESSONS LEARNED	
1	"Agricultural Waste" in the project area has assumed a different definition where it is now seen as a "Resource" that has value, which perception helps to motivate farmers to not continue to burn their farm residues but turn them into animal feed or manure.	
2	Efforts to reduce UPOPs emissions from open burnt sources also lead to reduction in the amount of CO2 and methane released into the atmosphere. This actually happened in the LBCE case, under which CO2 and methane reduction was recorded.	
3	Intangible environmental project objectives are better achieved when the project brings direct and feasible benefits to stakeholders. This was the case with the LBCE project. The intangible "UPOPs emission reduction" objective of project was amazingly achieved because the project brought direct and tangible benefits to stakeholders.	
4	<ul> <li>The adoption of the Less Burnt waste Management concept is a life transforming experience for the average cattle Fulani man that took part in the project. Through the alternative practices to burning thought under the project :</li> <li>He could convert bushes to animal feeds, translating to the fact that he could now settle in a place instead of wandering</li> <li>Children would be able to go to school unhindered because they could now settle instead of constantly moving.</li> <li>His using of feeds from shredder had increased the size of animals and also increased milk yields.</li> </ul>	
5	The use of the Less Burnt livestock feeds production method has the ability of reducing Fulani Cattle Rearers and Farmers conflicts which is so rampart all over the nation.	
6	The management of fund disbursement to project by the UNDP CO enhanced the success of project implementation.	
7	The Project Document with its well-articulated logical framework provided adequate guidance for project implementation and assisted project managers in the areas annual work planning and budgeting.	

## Table E.S.5: LBCE Project: Summary Lessons Learned

#### **Recommendations:**

13. The recommendations coming from the evaluation exercise, which are discussed in greater detail in section 4.3 of this report are summarized in Table E.S.6 below. The entities responsible for the different recommendations are also shown in the table.

Rec #	Recommendation	<b>Entity Responsible</b>
A	Category 1: Overall LBCE Project implemented in Anambra and Kano States – Monitoring, information dissemination and results replication issues.	FMEnv, Relevant State Ministries/Organizations
	Key recommendations:	

## Table E.S.6: LBCE Project: Summary Recommendations

A.1	Information on Project outcome should be disseminated by the Federal Ministry of Environment and the Partner States. This could be through various means and a cheap way to do it is through the Project website which is being transferred to FMEnv.	FMEnv., Partner States
A.2	The pledge by the two State Partners to sustain and replicate the project should be pursued and emphasized during the immediate post-project period by the Federal Ministry of Environment and project participants in the states.	FMEnv., Partner States
A.3	NESREA should continue to assist in replicating the project in more states of the Federation.	NESREA.
A.4	The expertise base of the UNEP Toolkits usage to be broadened through in-house training. This will be catalytic to project sustainability and replication.	Partner States
A.5	For future project designs, the issue of sustainability should be planned in a way that funds for sustainability could be secured physically six to twelve months before project closure.	Federal Government; UNDP, GEF
В	Category 2: LBCE Overall Project - Legislative and policy matters	
	Key recommendations:	
B.1	The endorsement of drafted laws and legislations by the legislative arm of government should be vigorously pursued.	FMEnv.
С	Category 3: Reduction of UPOPs emissions through introduction of new practices and approaches in municipal waste handling (Anambra and Kano States)	
	Key recommendations:	
C.1	Future projects should consciously consider and integrate gender issues right from the project design stage.	Federal Government; States, UNDP, GEF
D	Category 4: Reduction of UPOPs emissions from burning of farm fields in preparation for planting (Kano State)	
	Key recommendations:	
D.1	Technical documents produced under the project should be translated into relevant local languages in summary form for use by people at the grass root level. This will also assist in project sustainability and replicability.	FMEnv., State Partners
D.2	The animal feeds production method as taught under the LBCE project should be explored further to solve problem of insistent conflicts between Fulani cattle rearers and farmers. This will enable Fulani Cattle Rearers to settle with the concomitant benefits.	Federal Government

# CHAPTER 1: INTRODUCTION

## 1.1 Purpose of the Terminal Evaluation

1. It is mandatory for UNDP-supported and Global Environment Facility (GEF) financed projects, to undergo a Terminal Evaluation. Project evaluation generally assists in managing the results of project implementation, helps to strengthen the accountability of project managers, and others involved in project management and forms the platform for the evaluation of project outcomes and programmes. It also helps in bringing out lessons learnt in the course of implementing the project, lessons that could in fact inform in a practical way similar future projects for better success. The current Terminal Evaluation study is therefore being undertaken to determine the extent to which the *Less Burnt for a Clean Earth* (LBCE) Project was consistent with the plan and the relationship of different project activities to the effectiveness of the project as well as the extent to which the project has achieved its stated objectives and the extent to which the accomplishment of objectives can be attributed to the project.

### 1.2 Scope of the Terminal Evaluation

2. This Terminal Evaluation, as a requirement of UNDP-supported and GEF-financed projects, was commissioned by the UNDP CO in Nigeria. It provides a professional assessment of the performance of the 4-year implementation of LBCE Project, with particular reference to the achievement of its target objectives and outcomes. The evaluation assesses and rates project results, the sustainability of project outcomes, the catalytic effect of the project, and the quality of the project's monitoring and evaluation systems. It also identifies lessons learned and best practices from the Project, as well as offer recommendations that might improve design and implementation of other UNDP-supported GEF-financed projects. The evaluation covered all component areas as contained in the Project Document and included field visits to the two project areas in Kano and Anambra. In addition, as stipulated by the Terms of Reference (ToR) the Terminal Evaluation is conducted according to the guidance, rules and procedures established by UNDP and GEF as reflected in the UNDP Evaluation Guidance for GEF Financed Projects.

3. The elements that are covered by this evaluation are based on the ToR, and include:

- Project Formulation (conceptualization/design, country ownership/drivenness, stakeholder participation and replication approach);
- Project Implementation (implementation approach, monitoring and evaluation, stakeholder participation, financial planning, sustainability, and UNDP contribution);
- Project Results (attainment of outcomes/achievement of objectives); and
- **\*** Recommendations/Lessons Learned.

4. The principal issue addressed in the report is the extent to which the UPOPs emission reduction targets set for the two pilot sites were met. Since the targets were planned to be achieved through the project's three components, key issues examined also relates to the extent to which the

outcomes under the different components match what was originally planned. Details of the evaluation covered aspects that provided information on:

- Progress towards results as it relates to measurement of change, project strategy, performance, sustainability, relation to MDGs;
- Project adaptive management framework as it relates to monitoring systems, risk management, work planning;
- ✤ Appropriateness of the implementation approach with respect to: (i) clarity of roles and responsibilities of the various individuals, agencies and institutions and the level of coordination between relevant players; (ii) partners and stakeholders that were actively involved; (iii) support and technical backstopping by UNDP and other national entities.
- Involvement of the national stakeholders (e.g. governmental officials and academia) in project implementation.
- The extent to which governments and other partners have fulfilled their pledged financial obligations.
- Project sustainability and replicability for greater impact.
- Financial planning and timely flow of funds
- ✤ Cost effectiveness; and
- Project's reporting system and the effectiveness of the use of appropriate M&E tools

# 1.3 Evaluation Methodology

5. The evaluation used an approach that is consistent with international criteria and professional norms and standards; including the norms and standards adopted by the UN Evaluation Group. The Evaluator Team used methodologies that promote a shared understanding of environmental management procedures and priorities. These techniques stress the search for, and application of simple and effective solutions aimed at improving environmental management practices at all levels.

6. An important element of this is data sourcing types consisting of primary and secondary sources. Primary data consists of information evaluators have collected directly from stakeholders about their first-hand experience with the project. These data generally consist of the reported or observed values, beliefs, opinions, and knowledge of stakeholders, which were obtained through questionnaires, interviews, focus groups, key informants, and direct observation. These methods yielded information that helped in the deeper understanding of observed changes in outcomes and outputs. Secondary data used were in form of documents that have direct relevance to the LBCE project. These consist of project document; monitoring reports; previous reviews etc.

# 1.3.1 Basic Principles and Criteria for the Overall Approach

7. The evaluation was guided by the well-elaborated monitoring and evaluation issues and methodologies contained in the "*GEF Monitoring & Evaluation Policy*" and the "*UNDP Monitoring and Evaluation Policy*" documents. Particular attention was paid to the GEF principles

of independence, impartiality, transparency, disclosure, ethical, partnership, competencies/capacities, credibility and utility. This is within the overall GEF-related objectives of promoting:

- (i) Accountability and global environmental benefits; and
- (ii) Learning, feedback and knowledge sharing on results and lessons learned between the GEF and its partners.

8. The evaluation team developed and used tools in accordance with the GEF policy to ensure an effective project evaluation. The evaluation provides evidence-based information that is credible, reliable and useful and it is easily understood by project partners. In line with the TOR, in addition to issues of project implementation by the implementing agency, i.e. UNDP, project execution by the national executing agencies as well as project monitoring and evaluation by the implementing and executing agencies, the evaluation was conducted and the findings were structured around the five GEF major evaluation criteria and an additional sixth criteria from the consultants, namely replicability. The six evaluation criteria are as follows:

- i. *Relevance*, how the project relates to the main objectives of the GEF focal area, and to the environment and development priorities at the local, regional and national levels. Invariably these priorities relate to the country's obligations under related global conventions e.g. the Stockholm Convention;
- ii. *Effectiveness*, which is a measure of the extent to which formally agreed end of project results (outcomes) and objectives have been achieved;
- iii. *Efficiency*, which is a measure of whether or not the project was implemented efficiently, in-line with international and national norms and standards;
- iv. *Sustainability*, which measures to what extent there are financial, institutional, socioeconomic, and/or environmental risks to sustaining long-term project results;
- v. *Impact*, which assesses whether there are indications that the project has contributed to, or enabled progress toward, reduced environmental stress and/or improved ecological status;
- vi. *Replicability*, which is an indication of the potential for the project's implementation modalities and/or its outcomes to be replicated elsewhere within or outside the locality.

9. In addition to these GEF guiding principles described above, the evaluation team undertook a number of independent, impartial and rigorous evaluation activities which were participatory, knowledge and results-based, respected anonymity and ensured integrity.

## 1.3.2 Stages in the Evaluation Approach

- 10. The process for this terminal evaluation comprised
  - (i) Preparation and planning;
  - (ii) Desk review of the project and relevant documents;
  - (iii) Field visits and interviews, and
  - (iv) Analysis and report writing.

# 1.3.2.1 Preparatory Meetings

11. The Evaluation Team held introductory meetings with the Project Manager and Technical Director and one of the two Evaluation and Monitoring Officers of the project to have a good and comprehensive overview of the implementation of the project.. The meeting provided a strategic guidance for the commencement of the exercise. During the meeting, available relevant documents on the project were released to the Evaluation Team, and the proposed timelines for the study as well as the draft report outlines were presented and examined. An agreed workplan for the evaluation exercise was also developed and agreed upon.

## 1.3.2.2 Desk Review of Documents

12. During this stage of the study, the Evaluation Team undertook extensive review of available relevant documents which among others include: the project document; annual APR/PIR; Mid-termReview; project reports among others. During this phase the consultants gained a refined understanding of the activities and operations of the Project. Annex E shows the list of documents that were consulted in the course of the study.

## 1.3.2.3 Field Visits and Interviews

13. Two field visits were undertaken by the Evaluation Team to the project sites in Kano and Awka. The visits to Kano were undertaken between  $22^{nd}$  and  $25^{th}$  of August, 2015 while the Awka trip was undertaken 7 and 8 September, 2015. During the visits, meetings and consultations were carried out with relevant stakeholders. Others were interviewed and some given questionnaires to fill. The evaluation team itinerary is shown in **Annex B**, which summarizes places visited and the consultations that were held during the field visits. A summary of the observations in the field is given in **Annex D** 

**14.** Some stakeholders were interviewed while some were given questionnaires to fill. These included the LBCE Project Managers; two members of the Project Steering Committee; beneficiary farmers, cattle rearers and community head; as well as government officials in both States. The list of the people interviewed and/or given questionnaires to fill is shown in **Annex C**.

## 1.3.2.4 Analysis stage and report writing

15. During the analysis stage and report writing additional consultations were held with key personalities at the national level. The Evaluation Team worked in close collaboration with the implementing agencies of government. The findings and recommendations of the evaluation team were discussed in-depth with key stakeholders, including UNDP, Government and implementing institutions at the national level.

## 1.3.3 Rating of Project Success

16. The evaluators, in accordance with the GEF Guidelines, used an evaluation matrix to rate each outcome of the evaluation in terms of its success on a scale from 1 to 6 with 6 being the highest (Highly Satisfactory - HS) rating and 1 being the lowest (Highly Unsatisfactory). Other ratings were 5 (Satisfactory), 4 (Moderately Satisfactory), 3 (Moderately Unsatisfactory) and 2 (Unsatisfactory), depending on the achievement levels for the outcomes/outputs (see meaning of each rank in Table 1.1)<sup>1</sup>. The full interpretation of the rates is shown in Annex I. The ratings were used to construct a project performance matrix with necessary comments with respect to the ratings.

17. Some of the criteria that were used to rate the items included timeliness (how the project met the schedule and implementation timetable cited in the project document); achievement of results/objectives; attainment of outputs; completion of activities; project budget; impact created by the project; sustainability; stakeholder involvement; monitoring an evaluation. In addition, key items that were used to rate the project success included achievement of objectives and planned results; attainment of outputs and activities; cost-effectiveness; impact; sustainability; stakeholder involvement; nonicoring and management; replicability, sustainability and monitoring and evaluation.

Rating Scales		
Ratings for Outcomes, Effectiveness, Efficiency, M&E, I&E Execution	Sustainability Ratings	Relevance Ratings
6. Highly Satisfactory (HS) no shortcomings	4. Likely (L) negligible risks to sustainability	2. Relevant (R)
5. Satisfactory (S) minor	3. Moderately Likely (ML) moderate risks	1. Not Relevant (NR)
4. Moderately Satisfactory (MS) moderate	2. Moderately Unlikely (MU) significant risks	
3. Moderately Unsatisfactory (MU) significant shortcomings	1. Unlikely (U) severe risks	
2. Unsatisfactory (U) major problems		
6. Highly Unsatisfactory (HU) severe		
Additional ratings where relevant: not Applicable (NA) Unable to Assess (U/A)		

## **Table 1.1: Evaluation Rating Scales**

## 1.4 Evaluation Team Composition

<sup>&</sup>lt;sup>1</sup> Guidelines for GEF Agencies in Conducting Terminal Evaluations – GEF Evaluation Office, 2008

18. The Terminal Evaluation Team comprised of two company associates of John Davison Associates: Dr David B. Omotosho and Prof. Emmanuel O. Oladipo (National Consultants); and Mr. Richard Abrokwa-Ampadu (International Consultant). They worked with key stakeholders of the project to obtain the information used for the exercise. Short biographies of the evaluators are given in Annex K.

## 1.5 Structure of the Report

19. The Report comprises four Chapters described below and a number of Annexes.

**Chapter 1** provides introductory information on the Terminal Evaluation as it relates to its purpose and scope; methodology and evaluation team composition.

**Chapter 2** provides details on the project and its development context under which were examined the project background, project duration, problem it sought to address, project development objectives, baseline indicators, the main stakeholders and expected results.

**Chapter 3** deals with the study's findings and evaluation of outcomes by examining project relevance, project efficiency, project effectiveness, its impact, sustainability and replicability; and lastly.

**Chapter 4** states the conclusions, summarizes the lessons learnt in the course of implementing the project and provides recommendations for ensuring that the gains of the project and lessons learnt are sustained.

# **CHAPTER 2: THE PROJECT AND ITS DEVELOPMENT CONTENT**

# 2.1 Project Background

20. Persistent organic pollutants (POPs) are chemical substances that persist in the environment, have potential to bio-accumulate through the food web, and pose a risk of causing adverse effects to human health and the environment. This group of priority pollutants consists of pesticides (such as DDT), industrial chemicals (such as polychlorinated biphenyls, PCBs) and unintentional by-products of industrial processes (such as dioxins and furans).

21. POPs possess toxic properties, resist degradation, bio-accumulate and are transport, through air, water and migratory species, across international boundaries and deposited far from their place of release, where they accumulate in terrestrial and aquatic ecosystems, They progressively accumulate higher up the food chain such that chronic exposure of lower organisms to much lower concentrations can expose predatory organisms, including humans and wildlife, to potentially harmful concentrations. In humans they are also of concern for human health because of their toxicity, their potential to cause cancer and their ability to cause harmful effects at low concentrations. Their relative toxic/carcinogenic potencies are compound specific. POPs have also been shown to possess a number of toxicological properties. The major concern is often centred on their possible role in carcinogenic, immunological and reproductive effects but more recently concern has also been expressed over their possible harmful effects on human development.

22. In recognition of their adverse health and environmental impacts the 2001 UNEP Stockholm Convention on POPs aims to reduce and ultimately cease the manufacture, use, storage and emission of POPs, as well as to destroy existing stocks. It provides for measures to reduce or eliminate emissions resulting from intentional and unintentional production and use. It also plans to meet the obligations on technical and financial assistance to developing countries and countries with economies in transition, and to cooperate and exchange information. 12 POPs were covered under the original scope of the Convention. They included:

- *Pesticides*: aldrin, chlordane, DDT, dieldrin, endrin, heptachlor, hexachlorobenzene, mirex, toxaphene;
- Industrial chemicals: hexachlorobenzene, polychlorinated biphenyls (PCBs); and
- ✤ By-products: hexachlorobenzene; polychlorinated dibenzo-p-dioxins and polychlorinated dibenzofurans (PCDD/PCDF), and PCBs.

23. Article 5 of the Convention requires Parties to identify, characterize, quantify and prioritize sources of releases of unintentional persistent organic pollutants (UPOPs) and develop strategies with measures, timelines and goals to minimize or eliminate these releases.

24. To reduce the release of POPs from anthropogenic sources, parties are also required to implement best available techniques and best environmental practices for the sources listed under Annex C, Parts II and III of the Convention.

Nigeria ratified the Stockholm Convention on 22 August 2004, and is eligible to receive funding from UNDP and GEF. The nation's first preliminary inventory of UPOPs was conducted in 2007

as part of the process to develop Nigeria's National Implementation Plan (NIP) for the Stockholm Convention.

25. The NIP highlighted regulatory strengthening and development of policy guidance and coordination as one of the central needs and priorities of the country. It also ranks UPOPs releases from uncontrolled (open) burning of municipal waste and agricultural land as one of the key environmental challenges facing Nigeria. The Plan therefore called for further action to "Reduce Releases from Unintentional Production" as stipulated under measure 3.3.7.of the Convention. The country was then urged to:

- Review and develop by-laws, guidelines and procedures for uncontrolled burning activities
- Intensify on-going educational and awareness programmes on effects of uncontrolled burning activities
- Develop alternative methods of preparing farm fields for cultivation instead of burning.

26. Within the above context, and determined to take swift and concerted action in tackling waste management problems in the country's major cities, the Federal Government of Nigeria granted US\$2 million each to seven (7) cities to develop and implement Integrated Waste Management Strategies (IWMS).

27. It is against the above background that in 2009, the Global Environment Facility (GEF), under the GEF Persistent Organic Pollutants focal area approved a total grant of Four Million, Seven Hundred and Eighty Five Thousand dollars (US\$4,785,000.00) for Nigeria to implement the "*Less Burnt for a Clean Earth: Minimization of dioxin emission from open burning sources in Nigeria*" with a Co-financing amount of nearly Nineteen Million and Nine Hundred Thousand dollars (US\$19,800,736). The project was set to complement IWMS especially in the area of efforts to reduce UPOPs emission. The project was implemented by the United Nations Development Programme (UNDP) Nigeria Country Office in collaboration with the Federal Ministry of Environment.

# 2.2 Project Start and Duration

28. The implementation of the Less Burnt for a Clean Earth Project activities commenced on 27 April 2011 as against the initial planned date of 30 July, 2010. The project's inception workshop was undertaken in May, 2011. The mid-term review evaluation was carried out in June, 2013 while the current evaluation, the terminal is being undertaken in September 2015. The expected date of project completion is 31 December 2015 instead of the original closing date of 29 July 2014 which was stated in the in the LBCEP project document. The delay in the commencement of project implementation as planned for 1 August 2010 was due to administrative challenges in the Ministry of Environment and security challenges in the country. The implementation of the project was also slowed down by the delay in the appropriation of land by the Anambra State Government for the project as well as the presidential election held in the country in early 2015.

29. The consideration above is also shown in tabular form as in Table 2.1.

	-	
Mile Stone	Expected Date	Actual Date
Project Start Date	30 July 2010	20 April 2011
Inception Workshop	2010	May 2011
Mid -Term Evaluation	2012	June 2013
Terminal Evaluation	July 2014	September 2015
Terminal Review Workshop		October 2015
Project Closing	29 <sup>th</sup> July 2014	31 December 2015
	31 Dec. 2015 (Revised)	

# 2.3 Problem that the Project sought to Address

30. With a population of about 170 million, Nigeria is said to generate about 20 million tons of municipal waste per annum. Most of these are collected to waste dumps by municipalities. The 2007 POPs NIP conservatively estimated that 20% of the collected waste is uncontrollably burned at dump sites in Nigeria, mainly for recuperating valuable waste streams (e.g. metal) as well as compacting the volume of the waste. The total UPOPs releases from this practice is estimated to be about 5,300 g I-TEQ/a.

31. The burning of agricultural stubble and waste in preparation for planting, is a common agricultural practice in Nigeria. This also leads to local air pollution in the form of particulate emissions as well as UPOPs releases. These releases have been estimated at some 153 g I-TEQ/a nation-wide. Much of the formed UPOPs are left in the land and make their way into the human food chain through absorption by crops and ingestion by domestic animals.

32. Government efforts with regards to the IWMS as discussed in section 2.1 above though laudable, pay little attention to designing and implementing UPOPs reduction strategies or to key elements of the participatory process that is so critical to effective waste management steps such as sorting and separation of waste at the source. It is therefore thought that in the absence of a complementary GEF project, high levels of UPOPs generated by open burning of municipal and agricultural waste (MAW) will continue to affect the environment and people in Nigeria and worldwide. Also work to strengthen policies and guidelines to reduce UPOPs releases will be hampered by unreliable data on the nature and extent of the problem.

33. It is also feared that "the pace of adoption of specific practices that reduce UPOPs releases will likely remain slow, hampered by an emphasis on infrastructure rather than processes and people. For example, a low level of stakeholder participation in municipal waste source reduction, re-use/recycle, composting, and other related community-level activities will likely continue to be

the norm and will hamper the implementation of IWM overall, much less UPOPs-specific aspects of it. Large scale open burning will likely continue as the norm in most dumpsites as will the nonsorting of waste and the recycling of a small number of materials. Without an incremental "push" to overcome experiential and capacity barriers, the implementation of IMWM is likely to fall short in reducing UPOPs emissions in Nigeria".

34. It is in the light of these challenges that the project seeks to focus on introducing new practices and approaches and building capacity to apply international standards and to ensuring that the institutional abilities and policy framework are adequate to support action to better understand UPOPs and reduce their releases in Nigeria.

# 2.4 Immediate and Development Objectives of Project

35. The objective of the UNDP-supported GEF-financed 'Less Burnt for a cleaner Earth (LBCE)' Project is to enhance human health and environmental quality by reducing releases and exposure to unintentional Persistent Organic Pollutants (UPOPS) originating from unsustainable municipal and agricultural waste operations in the country. In the light of this, the project was designed to:

- (i) Enable Nigeria begin to reduce total UPOPs emissions with a focus on reducing UPOPs emissions from the open burning of municipal and agricultural waste; and
- (ii) Apply GEF eligible incremental measures that build on and go beyond an emerging baseline of improved integrated municipal and agricultural waste management practices in Nigeria.

GEF support was therefore to focus on introducing new practices and approaches and building capacity to apply international standards and to ensuring that the institutional abilities and policy frame-work are adequate to support action to better understand UPOPs and reduce their releases in the country.

36. The activities to achieve the objectives are grouped under three (3) Components:

Component 1: Legislative Strengthening and Policy Development.

37. The purpose of this component is to establish an enabling regulatory and institutional framework for the reduction of emissions from UPOPs. For this component, technical assistance and capacity building structures will be provided. The component also entails the support for the design of appropriate legal framework and the preparation of a national policy document on Municipal and Agricultural Wastes.

 Component 2: UPOPS Reduction through best Practices in Municipal Waste Handling.

38. The Component seeks to promote new practices and approaches for municipal waste management that focus on reducing unintended POPs.

Component 3: UPOPS Reduction through Agricultural Land Clearing.

39. This component seeks to promote the sensitization of farmers on the negative impacts of open burning of crop residue on their health, water retention abilities of their farm soils and the local and global environment. The component also seeks to expose farmers to practical better alternatives to burning.

### 2.5 Baseline Indicators Established

40. The baseline indicators established under the project as set out in the Project Document are summarized in table 2.2.

Components/Outcomes/Outputs	Base Indicators Established
Project Objective: Enhance human health and environmental quality by reducing releases and exposure to unintentional POPs originating from unsustainable municipal and agricultural waste operations.	20% reduction in open burning of collected waste and 100% of uncollected for both Kano( -78.8 g; -78g )and Onitsha( -19g; 7.12g ).
1.1 Quantified base line data on UPOPs generation	<ul> <li>-Updated MAW source inventory figures and UPOPs release figures from open burning of MAW.</li> <li>-Updated emission data on UPOPs in pilot states</li> </ul>
1.2 Federal waste management policy adopted and UPOPs Reduction Strategy Endorsed.	Number of State EPA endorsing draft MAW policy
National municipal and agricultural waste (MAW) management policy developed.	Legislative branch endorses MAW policy
Federal UPOP reduction implementation strategy.	Number of Federal Agencies and State EPA endorsing new MAW strategy
1.3 Technical by-laws and guidance adopted by Pilot States' EPAs.	By-laws for MAW management-related UPOPs drafted and adopted.
Technical by-laws, state and municipal guidance covering UPOPs reducing in municipal waste management developed.	Evidence of use and application of by-laws and guidance notes
1.4 Federal and State municipal waste policy setting and enforcement capacity increased	Number of judicial and state EPA officials in pilot states with measurable improved knowledge and skills
Strengthened capacity in UPOPs minimizing MAW management practice.	% of main actors in waste creation,storage transport and dumping familiar withIWM and UPOPs reduction principles
	Volume increase in waste sorted prior to putting in dumpsite.

### Table 2.2: Baseline Indicators Established

2.1 UPOPs emissions reduced Through Improved Sorting of Municipal Waste.	
2.2 UPOPs emissions reduced by improved composting	Number of neighbourhoods with active sorting and composting programme of city LGAs of pilot states
<ul> <li>2.3 Five States Participating in Federal-State-Private Sector IMSWMP replicate demonstrated best practices for UPOPs reduction.</li> <li>2.4</li> </ul>	Number of states incorporating UPOPs- specific priorities into their IWM strategies
The projects replication work will focus upon using the FMoE's national Integrated Municipal Solid Waste Management Programme as the "vehicle" for replication of project-inspired UPOPs reduction activities	<ul> <li>-Number of states and cities adopting by- laws and guideline notes.</li> <li>-Number of city and state staff in non-pilot areas trained in UPOPs-reducing practices.</li> </ul>
3.1 Open burning of agricultural waste is reduced through changes in agricultural	Number of hectares of farmland burnt in a year.
Alternative approaches to crop residue burning at pilot-sites in Kano state introduced and replicated.	Number of hectares in which alternative agricultural waste burning have been introduced by farmers.

## 2.6 Main Stakeholders

- 41. The main stakeholders for the LBCE Project are:
  - Beneficiary Farmers
  - Beneficiary Cattle Rearers
  - ✤ Waste Scavengers (Informal Waste Pickers)
  - Federal Government of Nigeria (Federal Ministry of Environment; Federal Ministry of Finance; Federal Ministry of Agriculture);
  - State Governments (Kano State Ministry of Environment; Kano State Ministry of Agriculture; Anambra State Ministry of Environment; Kano State Refuse Management and Sanitation Board and Anambra State Waste Management Authority)
  - National Environmental Standards and Regulations Enforcement Agency (NESREA)
  - United Nations Development Programme (UNDP); and
  - Global Environment Facility (GEF) [International]

### 2.7 Expected Results

- 42. For expected results, the following emission reduction targets were set:
  - (i) **Awka Target:** 20% reduction in open burning of collected waste at dumpsites and 100% reduction in open burning of uncollected waste:

- ◆ 19 g TEQ/a reduction by year 4 in UPOPs from collected waste burning.
- 7.12 g TEQ/a reduction by year 4 in UPOPs from open burning of uncollected waste.
- (ii) **Kano Target:** 20% reduction in open burning of collected waste at dumpsites and 100% reduction in open burning of uncollected waste:
  - \* 78.8 g reduction by year 4 in UPOPs from collected waste burning.
  - 78 g TEQ/a reduction by year 4 in UPOPs from open burning of uncollected waste.

#### (iii) Total Combined Target:

- 97.8 g TEQ/a from open burning of collected waste in landfills (20% of baseline)
- ★ 85.12 g TEQ/a from open burning of uncollected waste (100%) of baseline.
- (iv) **Cropland Burning:** For cropland burning in Kano State, the total planned reduction of UPOPs releases to the air at the end of the project is put at 5.5 g I-TEQ/a.
- (v) **Other:** The Project is expected "to lower the barriers for introducing non-burning waste management for MAW and demonstrate BAT/BEP approaches for wide replication throughout the country".

# CHAPTER 3: FINDINGS AND EVALUATION OF OUTCOMES

**43.** The main findings of this terminal evaluation study are discussed within the overall context of:

- (i) Project design/formulation;
- (ii) Project implementation; and
- (iii) Project results.

**44.** Issues on project design/formulation discussed, include analysis of LFA/Results framework, assumptions and risks, planned stakeholder participation replication approach and management arrangement, among others. On project implementation, adaptive management, partnership arrangements, feedback from M&E activities, project finance, monitoring and evaluation, and UNDP implementation /are issues of consideration. Lastly, project performance were measured and discussed on the basis of GEF five major evaluation criteria - *relevance, effectiveness, efficiency, impacts* and *sustainability*.

# 3.1 Project Design/Formulation

45. In general, the conceptualization and design of the project, as described in the project document was considered very appropriate. However, project design did not specifically address gender issues, presumably due to the nature of some of the key activities involved, such as waste scavenging, farming and cattle rearing which are traditionally male-oriented activities. The conceptualization and design of the project was timely and crucial for bridging the gaps identified in the national Integrated Waste Management Strategy (IWMS) (by)(and) providing a platform for effective activities in legislative strengthening and policy development as well as promoting activities geared towards the reduction of UPOPs emissions through new practices and approaches in municipal waste handling and agricultural land clearing.

46. While the goals and objectives of the project were thought to be noble and welcoming to many stakeholders talked-to, the scope was however thought to be limiting. With the size and population of Nigeria, the project having only two pilot sites was regarded as inadequate. Though project design attempted to create a national feel of the project by the introduction of certain elements of the projects in some other states, in particular the five states under the Integrated Municipal Solid Waste Management (IMSWM) programme, the fact that project funds were not available for direct use and intervention in those states was regarded as a limitation to the national effect of the project.

# 3.1.1 Logical Framework Analysis

47. In general, the conceptualization and design of the project, as described in the project document was considered very appropriate. Based on project objectives and targets, the strategy set was also appropriate. It supported the building of capacity for the application of international standards and ensuring adequacy of institutional and policy framework to support action on UPOPs by focusing on legislative strengthening and policy development; reduction of UPOPs emission through the introduction of new practices and approaches in municipal waste handling and agricultural land clearing.

48. The project's outcomes and outputs with indicators, base values and target values as well as means of verification, were properly put into a logical framework that is easy to understand and follow. The Logic Frame (Annex A of ToR), which was not altered throughout project duration formed the main management, and M & E tool for project implementation. It actually served as "compass" for project implementation, for the PMU staff attested to religiously following it and it helped them to address implementation issues of annual work plans, quarterly reports, as well as the annual project implementation review (PIR) and Mid-Term Evaluation report.

49. Also the indicators and targets were thought appropriate for measuring project performance and results. It was however observed that gender issues were not explicitly dealt with at project conceptualization and design stage.

## 3.1.2 Assumptions and Risks

50. Several assumptions were made pre-project commencement, some of which are re-stated here in order to have an insight into conditions assumed for success at project conceptualization and design stage.

51. The basic assumption was that less UPOPs will be emitted into the atmosphere as a result of the project. Some of the assumptions made relating to the "Legislative Strengthening and Policy Development" among others include:

- Commitment of Federal Ministry of Environment and cooperation between state and local government is secured.
- ✤ Internet access will be sufficient for state participating in on-line UPOPs tracking.
- States may not dedicate sufficient resources to monitoring and reporting mechanism.
- By-law unless carefully crafted may run aground on local politics.
- City and state government will be proactive on by-laws passage and guidance notes on UPOPs reduction in waste management.

52. On the component " reduction of UPOPs emission through new practices/approaches in municipal waste handing", assumptions made include:

- Awareness will translate into improved participation in and support of adopting new practices.
- Composting programme will be able to produce the right type of compost to meet the market's needs.

53. On the component relating to agricultural clearing, the following are some of the assumptions made:

- ✤ Farmers will embrace the benefits to not burning.
- Needed agricultural and land per crop data will exist and be made available to project.
- ✤ Awareness will translate to changed practices.

54. Many of the above assumptions remained valid and stood during project implementation. It was also observed that some of the assumptions made seem not to relate well with the issues they were attached to, for example assuming that "partnership with Federal, State and City programme officials will be able to coordinate needed joint actions on a timely basis" in relation to "number of dumpsites upgraded to reduce/prevent burning" did not seem to jell together.

55. Basically, four risks were identified at conceptualization and design stage which relate to private investment; replication; receptiveness for capacity strengthening and cultural resistance. These were well-founded, and project design did well by addressing issues dealing with mitigation measures for same.

56. Based on monitoring activities, risks were often identified before they could become problems and the project took action to minimize their effects. The project demonstrated flexibility and the ability to adapt to changes created by risks. It reviewed several of them in the project design including the logical framework, which would have negatively affected the project's outputs. Potential risks, including (a) difficulty in obtaining land for project site, and (b) delayed release of project funds (briefly described below) were identified and solutions were consistently found to minimize them.

a) Problems with land for the project:

For example, in Anambra State there was some difficulty in obtaining a site for the project. This was timely solved by securing direct communication with the Governor of the State. Also the intervention of other relevant stakeholders, such as traditional leaders, youth groups and others with knowledge of local socio-political structure facilitated timely resolution of the issue.

b) Delayed release of funds:

The PMU ascribed this problem to UNDP CO work bureaucracy. The problem was mitigated through direct communication between the PMU and the country office. The PMU staff held meetings as well as made telephone calls and exchanged e-mails with relevant CO staff to address the problem. Also prior to undertaking the programmes the PMU was upfront in explaining to project participants of possible delays in release of funds for some planned activities so they were willing to cover some costs confident of prompt reimbursement. For example, before some workshops were held participants were advised to cover the cost of their participation and get reimbursed later, which was always obliged. Through these measures adverse impacts to project implementation were successfully avoided. The country office did not respond to a request to provide any possible insights into the issue.

57. Security risks were not anticipated at project design stage but became a trying issue during implementation, especially in Kano where the risks remained high thereby serving as a potential threat to project implementation. Adaptive management became handy with project staff taking all

necessary precautions in consultation with local authorities. Implementing activities and achievements under this difficult situation made the project performance in Kano quite remarkable.

58. Nationally, there were a lot of uncertainties, anxiety and apprehensions relating to the general elections held during the first quarter of 2015, and project activities had to slow down, and could only pick in May, 2015 after a new administration took over.

## 3.1.3 Lessons from other relevant project incorporated into project implementation

59. The department of Pollution Control of the Federal Ministry of Environment had between 2004 and 2010 overseen the implementation of Nigeria's Montreal Protocol "National CFC Phase Out Plan"(NPP) also in collaboration with UNDP. The project was a success and saw the total phase out of CFC "use" in Nigeria. The Programme Manager & Technical Director of the LBCE Project was the Deputy Coordinator for the implementation of the NPP, who among other activities, liaised between stakeholders and UNDP which was also the implementing agency of the phase-out plan. In the course of interacting with him, it became obvious to the evaluators that the experience gained from participation in the implementation of the NPP manifested in LBCE Project implementation. The Programme Manager admitted that some lessons learnt during NPP's implementation became handy and actually helped in the implementation of the current project. Such lessons included the following:

- With internationally funded projects, there is need to get beneficiaries well informed about funding and downstream payment issues before activities are undertaken as a way of avoiding potential situations of despondency that could put project participants' cooperation as well as their confidence in the project's implementation at risk.
- Regular interaction with the implementing organization, in particular the country office and persistence in following up payments and fund releases for project activities to address the needs of stakeholders in a timely manner helped sustain stakeholder interest and promote higher level of participation.

## 3.1.4 Planned Stakeholder Participation

60. The project document did well in itemising and discussing the stakeholders involved in the LBCE project, stating in a clear and understandable way the roles and responsibilities of each. The two main international stakeholders are Global Environment Facility (GEF) and the United Nations Development Programme (UNDP).

61. At the national level, the stakeholders for the project included the Federal Ministries of Environment; Finance; and Agriculture & Rural Development; State Ministries of Environment and Waste Management Agencies in Kano and Anambra States; Kano State Ministry of Agriculture; National Environmental Standards and Regulatory Agency (NESREA); training and research institutions; legislative arm of government at national and local levels; waste generators; waste sorters; agricultural and livestock producers (farmers and cattle rearers); and the UNDP Country Office.

62. The project design's way of fostering interaction and bonds between the stakeholders was through the Project Steering Committee (PSC) which provided guidance for project implementation

including approval of overall work plans and budget revisions, meeting twice a year. Stakeholders meetings also served as a form of stakeholder-bonding mechanism.

63. The evaluation team noted that all the stakeholders listed and envisioned in the project document participated effectively in the implementation of the LBCE Project. The end-user stakeholders were well trained and it was interesting and heart warming listening to the local people understandably using technical agricultural terms taught at the workshops and demonstrations to describe the processes of handling their agricultural waste stream.

64. Since local farmers are perhaps the most important stakeholders for sustainability of the LBCE project, the sheer numbers of sensitization activities, practical training and demonstrations undertaken during project implementation will surely help to get the practices taught to be used and get the project sustained.

# 3.1.5 Replication Approach

65. As designed, the project replicability potential was high based on already existing government investment "on modern waste management practices as reflected in the Integrated Municipal Solid Waste Management (IMSWM) Programme". The LBCE project with its incremental UPOPs-focused additions to the IMSWM Programme had been "designed to emphasize demonstration and replication with outcomes 2.3 and 3.1 focusing on replication."

66. During actual project implementation many training workshops had been carried out both in the two project pilot states and outside the two pilot states. There was therefore a stock of knowledgeable people through which the project could be replicated. Indications that the project will be replicated also abound and include the following:

- The new General Manager of REMASAB plans to set up a compositing plant at Yan'Lemo, Yankaba, which is a major vegetable market in Kano. The plant would take advantage of the vegetative waste generated in the market. The evaluators saw samples of organic manure bags being considered by the General Manager for use in bagging the compost manure to be produced.
- Farmers in other states bordering Kano had been coming to the state for knowledge sharing and some had even ordered shredding machines for the purpose of composting and production of animal feeds.
- The planned Radio talk programme on the Less Burnt waste management concept will advance project's replicability.
- Private Businessmen and women interested in making money out of waste were emerging. The evaluation team interacted with one of them (Abubakar Hamsa) in Kano during the field trip to project sites.
- Development partners, including the World Bank and DFID, have indicated interest in supporting large scale up-scaling of the project in many parts of the country for enhanced intervention impact.

On this basis, it was evident that conditions for replicability and scaling-up of the project were highly favourable, and therefore replicability was rated as satisfactory.

## **Project Replicability: Satisfactory (S)**

## 3.1.6 UNDP Comparative Advantage

67. UNDP had a comparative advantage with respect to the LBCE project. UNDP of all multilateral agencies seems to have the densest network of offices in developing countries of the world. The agency works in more than 170 countries helping "to develop policies, leadership skills, partnering and institutional capacity building to promote and sustain development".

68. The UNDP Country Office in Nigeria has been operating for years and is, in fact, one of the biggest in Africa. The motivation to allow UNDP be the implementing agency for the LBCE project was therefore driven by the desire to draw upon the country office experiences and knowledge of the local area, which has the ability of aiding project implementation and effective use of project funds. In addition to this, the project falls within UNDP's priority and programming areas, fitting well into its core mission of assisting countries build capacity.

## 3.1.7 Linkages between project and other Interventions within the sector

69. The Federal Government of Nigeria has been taking action for tackling the problem of waste management in major population centres. As stated elsewhere in this report, 7 cities have developed Integrated Waste Management Strategies (IWMS), and have been granted around US\$ 2 million each for implementing these strategies. The LBCE project is linked with this government. The LBCE project activities assisted this major initiative with planning and policy development and also complemented this government initiative by providing technical assistance focusing on UPOPs reduction in selected cities as a part of efforts of establishing Integrated Waste Management Strategies in the country.

### 3.1.8 Management Arrangements

70. The project was managed under a Government-UNDP National Execution (NEX) Modality. Under this the Federal Ministry of Environment served as the executing agency and UNDP, the implementing agency. In this the UNDP Country Office provided necessary support to project implementation activities in accordance with UNDP rules and procedures in the areas of budget revisions, disbursements, accounting, and auditing among others.

71. A Project Steering Committee (PSC) was established for the Project at its commencement to provide strategic guidance and direction to the Project. The PSC provided political oversight for the project. It ensured that project resources were rightly committed and stood in the position of arbitrating on conflicts and negotiating solutions to problems with external entities. Its responsibilities also included consideration and approval of the annual Work Plans and review of

the project's financial and physical broad delivery issues. The membership of the committee is as shown in Table 3.1 below:

ROLES	STAKEHOLDERS
Chairman	Federal Ministry of Environment (Director, Pollution
	Control)
Member	Representative of Federal Ministry of Finance
Member	Representative of Federal Ministry of Agriculture
Member	Representative of Kano State Ministry of Environment
Member	Representative of Kano State Ministry of Agriculture
Member	Representative of Anambra State Ministry of Environment
Member	Waste Management Expert
Member	Agronomist
Member	Programme Manager & Technical Director (Secretary)
Observer	Representative of UNDP CO

 Table 3.1: Membership of the Project Steering Committee

72. The PSC met annually to assess the progress of work, approve the annual work plans and budgets. It was noted that the UNDP CO sent a representative to the committee meeting at its inauguration, after which it never attended any other committee meeting held throughout the duration of the project. Since the annual PSC meeting served as a useful forum for key partners to understand and appreciate the working of project activities, this was taken to be a serious omission by UNDP CO, especially since the meetings offered the UNDP CO the opportunity to provide guidance and advice to the committee on rules and procedures when necessary. On the other hand the absence of the UNDP CO from the PSC meetings could be interpreted as keeping its distance from the project execution in order to avoid creating the impression of playing both the project oversight and execution roles at the same time. Whichever is the reason for non-participation in the meetings or activities of a national committee the UNDP CO probably owed it a duty to explain to the responsible Ministry.

73. The PMU played a central role in the day to day running of the Less Burnt for a Clean Earth Project (LBCEP). Its responsibilities included planning and co-ordinating Project activities; recruiting short-term consultants; organizing workshops and training programmes and disbursing project funds as planned. The unit monitored project progress and assessed outputs of the different project components. It also maintained close collaboration with the government, UNDP Country Office, UNDP Regional office in Istanbul, the two Project Pilot States and other stakeholders.

74. The PMU was headed by the Programme Manager & Technical Director, who is responsible to the Steering Committee and also served as its secretary. He has the responsibility for delivering the Project by leading the implementation of programme-level activities within the context of what has been approved by PSC. He ensures the facilitation of support to experts, and is in charge of financial management, knowledge exchange, project monitoring and reporting.

75. The Programme Manager was supported by other PMU staff consisting of two (2) Monitoring and Evaluation Officers and two support as project secretary and project accountant. The staffing structure as described above is also as shown in Table 3.2.

POSITION
Programme Manager & Technical Director
Monitoring and Evaluation Officer (A)
Monitoring and Evaluation Officer (B)
Technical Assistance/ Project Secretary
Project Accountant

 Table 3.2: Project Staff Structure

76. The Project Management Unit functioned effectively and efficiently in carrying out its responsibilities. Characteristics of the project's management and execution at the project sites are briefly described below.

- For the Pilot Site at Awka, Anambra State, the project was managed by the Managing Director, Anambra State Waste Management Authority. He had a team of staff and consultants working with him on the project.
- For the Kano Pilot Site, the project was managed by the Director, Administration and General Services. He also had a team of staff, an agricultural expert and consultants working with him on the project.
- National and International experts were used in several aspects of project implementation as consultants. This was really a critical component of the capacity building component of the project.

**77.** The evaluation team noted that the overall implementation of the project was excellent. The Project Management Units had staff of high professional quality and a clear, systematic and transparent way of working with open lines of communication with the Project Manager and Technical Director. All staff members were fully involved at their respective duty levels and responsibilities.

78. There was evidence that a very good relationship existed between the Project Management Units, pilot states government officials, farmers and municipal waste sorters, a factor so fundamental to effective implementation of the project and the achievement of project objectives.

79. Project design assumes same level of performance for activities undertaken in states that are not directly funded under the project. This may be too optimistic.

"Project's deliverables and targets should be limited to activities fully funded by the project and supported by beneficiary States and not based on assumption that other states will buy in into the project. Most non-beneficiary States are very reluctant in providing support for project's activities in their states, with their fund."

80. In all aspects the management of the LBCE Project has been rated highly satisfactory.

### Management: Highly Satisfactory (HS)

### 3.2 Project Management

81. In the opinion of the evaluators, a major contributor to the success of the LBCE Project was the management approach adopted by the project team. The project has been well managed and the project management team used adaptive management approach capable of weathering challenges faced by the project which enabled them to secure project outcomes. The approach adopted for the project's implementation gave room for adaptability and flexibility, which was viewed by staff members that the TE Team interacted with as instrumental to project success.

82. The TE Team noted that the management team worked as a team with a common purpose and used the project document as a guide for implementing the project, which yielded good results. In line with the project document, the project team also implemented the project using a Results-Based-Management (RBM) approach, which helped to achieve the level of success attained. Overall, the management approach adopted for the implementation of the LBCE Project was highly satisfactory.

### 3.2.1 Adaptive Management

83. Adaptive management became very critical for the successful implementation of the LBCE project in several respects. At some stages of project implementation, some decisions had to be made in the face of uncertainties or implementation shocks in order to forestall poor results or help to direct efforts to find acceptable solutions to challenges. Monitoring played a very important role in this.

84. The two project sites were located in different geo-political zones of the country with different socio-cultural settings. For success at the local level, the management style, management language and overtures used had to be adapted to suit the different socio-cultural milieus. This situation appeared to have informed the decision to engage two monitoring officers for the project. In this respect such an approach worked very well for the project.

85. A major challenge encountered by the project was the delay encountered in Anambra State in getting land allocated for the waste composting component of the project. The land set aside for the project was initially approved by the Governor in office in 2014. The process of transfer to the project could not be completed before the expiration of the Governor's tenure, which led to project

implementation delays. The PMU had to result to innovative adaptive management to get the problem solved. The PMU, which operated an open management system that allowed uninhibited ideas-contributions, engaged stakeholders through which the problem was solved based on the group's knowledge of the socio-political set up of the area. This led to the use of political powerdrivers, traditional leaders and youth groups to get the project land released for project use in Awka.

# 3.2.2 Partnership Arrangements

86. At the state levels the partners were the Pilot States' Environmental Ministries and Waste Management Agencies both in Kano and Anambra. The State Partners and the PMU related well for project success. The staff of State Partners working on the project were mostly professionals in the relevant areas, so they were knowledgeable and had good understanding of their roles. They were also well motivated. These undoubtedly contributed to project success.

87. The relationship between the PMU and the PSC was very cordial. PSC members were experienced in environmental matters and also had been well motivated. They provided needed project guidance and steered the project through some rough times bordering on implementation delays.

88. In Kano State, in the course of project implementation and to further deepen impact and sustainability, partnership was built with Audu Bako College of Agriculture, Dambatta, and the Kano State Livestock Institute, Bagauda. The Audu Bako College of Agriculture had incorporated the LBCE "unconventional feed system" into the curriculum to prepare students to use same on graduation. The college was given a shredding machine from the project. There is a thriving farmer group around the college, who in fact composed a **song in the local language** for the propagation of the Less Burnt "alternative methods" of waste conversion to "animal feed" and "manure". The Kano State Livestock Institute, Bagauda, was also given a shredding machine and the Institute now uses the Less Burnt concept to teach students in the feeding of animals. They have in fact taken the animal feed concept a step further by experimenting into the production animal feeds in the form of "blocks". After shredding farm wastes, some nutrients and binders are added after which they are compressed into "blocks" of daily animal feed needs.

89. The TE Team noted in general that the capacities of the key beneficiary stakeholders of the Project (e.g. farmers, cattle rearers, municipal waste sorters and householders), including men and women to apply the techniques of less burnt approach to agricultural residue and municipal waste were effectively built during the project implementation. The Team is of the view that the very cordial relationships between the PMU and the **partners** were very fundamental and critical to the success of project implementation, by which project partnership arrangements are rated **effective**.

## 3.2.3 Feedback from M&E activities used for adaptive Management

90. Monitoring and Evaluation, under the project were taken very seriously which is manifested through the appointment of two monitoring officers for the project. This actually enhanced the project's monitoring capabilities. Feedback from M&E activities in some ways gave way for adaptive project management. For example M&E feedback showed that because of the delay in
project commencement that it became unrealistic to undertake the Mid-Term Review (MTR) in 2012 as planned. This activity had to be re-scheduled for 2013, which allowed for more work done, further experience and lessons learnt on part of project staff that positively informed subsequent implementation activities.

91. In the same manner, feedback also showed that since project closing was shifted to 2015 instead of the planned 2014, it was expedient that "the Terminal Evaluation (TE) can only be conducted once the project was operationally closed". There are various other M & E feedback that led to suggestions on how to ensure smooth project running through timely submission of reports and taking of other adaptive implementation measures.

## 3.2.4 Project Finance

## 3.2.4.1 GEF Resources

92. The pledged GEF contribution was US \$4,150,000.00, of which US \$868,590.00 was released in Year 1; US \$971,050.00 in Year 2; US \$1,175,930.00 in Year 3, and US \$1,134,430.00 in Year 4. This back loading release structure seems to push a lot of project activities to the fourth year of implementation, which has the ability of introducing a lot of "implementation stress" into the fourth year's operations. Releases could have been increased for years 2 & 3 to reduce such tendencies.

Funds allocated for the specific activity of Monitoring and Evaluation were considered by the PMU to be limited. As a result, Monitoring and Evaluation travel to Project sites were limited mainly to the commencement and final phases of project activities, relying instead on reports from State Government staff to augment the Monitoring and Evaluation process. Although funds allocated for travel based on UNDP rates were reported to be better than Government rates they were still inadequate due to increasing airfares and hotel accommodation rates during the duration of the Project. Thus cheaper accommodation had to be sought by the project staff, usually in less secured parts of cities during travel for project activities, in order to be within the DSA allocation.

## 3.2.4.2 Government Co-financing and mobilized additional resources

**93.** A total of US\$19,800,736 was pledged for co-financing by the different government partners and UNDP as in Table 3.3 below. Information obtained on the final project profile showed GEF funding of US\$4,150,000 and total counterpart contribution of US\$11,150,000 for a total project fund of US\$15,300,000. Taking account of UNDP contribution of US\$100,000, the actual national contribution was US\$11,050,000. While this amount accounts for 56% of the pledged co-financing it constitutes 73% of the actual total project financing. It may be noted that due to the shortfall in pledged co-financing the actual project financing was 77% of the estimated project financing.

## Table 3.3: Resources from Co-Financing Sources

Funding Source	Pledged	Comments
	<b>Contribution (US \$)</b>	
Government of Nigeria (FMEnv,)	9,970,000	Mostly in kind contribution
Government of Nigeria (NESREA)	120,000	In kind contribution
Anambra State	2,348,992	In kind contribution
Kano State	7,261,744	In kind contribution
Total Pledged Government Co-	19,700,746	
financing		
UNDP	100,000	
Actual Total Co-financing	11,150,000	Based on official GEF data
		Co-financing mainly in kind. Cash mobilization at
		project level limited. Project motivated potential
Actual Government Co-financing	11,050,000	future private sector financial investments.

94. The government co-financing was mainly in-kind consisting of land provision, office provision and payment of salaries of most of project staff at both the Federal and State levels. It is difficult to break down the government co-financing by level of government. However, it is apparent that the largest portion of such co-financing came from the Federal Government (Federal Ministry of Environment). With regard to counterpart Government funding it is important to note the following:

- Cash estimated at US\$50,000 was received from the Federal Ministry of Environment as counterpart funding for the project. In addition, project vehicles were purchased from funds from the Ministry. The salaries of only two support staff out of the five dedicated staff of the PMU which was located in the Ministry were covered by the project. The Project Manager and two other support staff were paid by the Ministry without any additional allowances from the project; so was the Director of Pollution Control and Environmental Health who was the National Project Director (NPD) and had direct oversight of the Project for the Ministry.
- Although there is no indication of the actual amounts in funds released with regards to the government co-financing pledges at the State level it is pertinent to note that land, offices and facilities released for project use by the pilot State Governments, if properly factored, could be substantial and probably be more than sums pledged.
- State Government staff also assisted in monitoring project work and reporting to PMU at regular intervals at no cost to the project. This helped in keeping Monitoring and Evaluation officers constantly up-to-date with work progress, thus reducing the need for their frequent visits to Project sites, thereby reducing pressure on limited M and E funds.
- The capacity of the project to mobilise cash co-financing appeared to be limited giving prevailing economic circumstances. However, there were promises by other States to replicate the project in their domains, which could make substantial impact, if properly done.
- The potential for additional resources is also high now that other donors (e.g. World Bank and DFID) can see some results from the LBCE Project.

# 3.2.4.3 Financial Disbursement

95. The LBCE project was executed using the National Execution (NEX) implementation modality. All disbursements were processed through UNDP corporate accounts. Request for direct payments were certified by the Project Manager and Technical Director of the Project in line with what had been planned. Approval was given by local UNDP and then recorded in the global UNDP ATLAS system. The system produced accurate and timely financial information for the project management team. The accounting and financial system employed by the project management team was rated as **satisfactory**. About 81.3% of the GEF grant budget of USD 4,150.000 had been disbursed by 30<sup>th</sup> June 2015.

96. In general, the TE Team noted that the financial resources were used judiciously.

## 3.2.5 Monitoring and Evaluation (M&E)

97. The LBCE project monitoring and evaluation (M&E) was undertaken in line with the established GEF procedures and UNDP regulations. These make performance and impact indicators for project implementation and their means of verification to form the basis of the project's M&E system, which consists of:

- (i) Project inception phase;
- (ii) Monitoring responsibilities and events;
- (iii) Project reporting; independence evaluations;
- (iv) Auditing; and
- (v) Learning and knowledge sharing.

#### 3.2.5.1 Project Inception Phase

98. A project inception workshop was conducted on 26<sup>th</sup> May 2011 in Lagos with participation of staff of PMU, PSC members, representatives of co-financing partners, UNDP-CO, GEF, and relevant government stakeholders. The workshop assisted the PMU to complete the logframe which enabled it to finalise the annual Work Plan (AWP). The meeting also served as a forum for PMU staff to meet and interact with UNDP and the UNDP-GEF expanded team that were to support the project in the course of implementation. It also served as a forum for all parties to understand their roles, and responsibilities within the project decision-making structure.

#### 3.2.5.2 Monitoring Responsibilities and Events

99. Monitoring responsibilities set out in the project document and undertaken by project included among others:

- \* The Project Manager was responsible for day to day monitoring of implementation progress;
- Periodic monitoring of implementation progress to be undertaken by the UNDP-CO through quarterly meetings;
- Yearly visits to be conducted to project sites by UNDP-CO and PMU as appropriate;
- PMU to prepare Annual Project Reports (APR) for presentation at the Annual Review of UN programme co-ordination Group, PCG-8 Annual Review; and
- Project's Terminal Tripartite (TTR) meeting to be undertaken in the last year of project.

#### 3.2.5.3 Project Reporting

100. As part of the monitoring process and as required and set out in the project document, the Project Manager reported implementation progress regularly to the members of the Project Steering Committee and other entities. Mandatory Reports on the progress of project implementation were prepared and distributed as appropriate. They included:

- Project Inception Report: This was prepared at the commencement of project, giving details of what was planned for implementation during the first year with corresponding budget for the year.
- Annual Work Plans (AWP): The annual work plans, taking root from the project document sets out activities planned for the particular year with the corresponding budget, which was prepared in collaboration with UNDP-CO and then presented to the Steering Committee for approval for implementation.
- ✤ Quarterly Reports: Produced regularly, stating the major accomplishments of the past period and the plan for the next period.
- Annual Project Report (APR) A UNDP requirement, the APR is a self-assessment report by project management which provides input to the UNDP-CO's reporting process and forms an input to the Annual Review under the framework of UN PCG-8 Annual Review. It records progress in meeting project's AWP.
- Project Implementation Review (PIR): Jointly prepared in collaboration with UNDP-CO. Prepared in line with UNDP/GEF guidelines, the PIR provided a lot of useful information about project implementation.
- Project Mid-Term Review: Prepared mid-way of project implementation, this report detailed out achievements of project, lessons learned and recommendations.
- Project Terminal Report: Described the project achievements as measured against what had been planned. Items covered similar to those for the mid-term review, but covering the entire project duration.

#### 3.2.5.4 Independent Reviews and Evaluations

101. As also stipulated in the project design, the project was planned to be subjected to an independent review and evaluation; the Mid-Term Review and the Terminal Evaluation. The former was undertaken in June 2013 while the later relates to the current report.

## 3.2.5.5 Auditing

102. The project design required that the project be subjected to an annual auditing exercise. In line with this, the LBCE project's accounts were audited annually by certified auditors in accordance with established procedures set out in the programming and Finance manuals of UNDP. There were no financial improprieties reported by these audit exercises.

## 3.2.5.6 Learning and Knowledge Sharing

103. Results from the project were expected to be disseminated within and outside the project intervention area. To this end a terminal knowledge sharing meeting was held in Kano in November, 2015. Apart from this, the activities and achievements of the project were made available on the project's website at <u>www.upops.org.ng</u>.

104. On the monitoring and evaluation measures, the project has been rated satisfactory.

**Monitoring and Evaluation: Satisfactory (S)** 

#### 3.2.6 UNDP Implementation

**105.** As stipulated in the project document, UNDP CO provided project management oversight as well as financial management support to the project. It also assisted in the mobilization of international project inputs. It carried out its oversight roles over expenditure responsibly to ensure that financial disbursements were made in line with GEF requirements and procedures. Members of the LBCE Project management team however raised some concerns about occasional delays by the UNDP-CO in processing required funds for project implementation due to what was referred to as "internal UNDP-CO Bureaucracy". These occasional delays impacted negatively on implementation activities. They also mentioned the fact that though UNDP was a member of the Steering Committee, it did not attend any of its meetings, besides the committee's inaugural meeting. Despite these lapses, the contribution of the UNDP-CO to the success of the LBCE Project implementation was regarded as beneficial. Considering all the issues described the TE Team has rated the UNDP implementation efforts as **moderately satisfactory**.



#### 3.3 Project Results

106. As required in the ToR, an assessment of the project was undertaken to measure performance against expectations set out in the Project Logical Framework/Results Framework on the basis of provided performance and impact indicators and their means of verification. The assessment covered not only the five required criteria area of relevance, effectiveness, efficiency, sustainability and impact but also replicability. The exercise used the obligatory rating scales as shown in Annex I, the interpretations of which are provided in Annex J.

## 3.3.1 Overall Results

107. Table 3.4 on LBCE "project monitoring implementation progress towards meeting development objectives" has been prepared on the basis of the "Project Logical Frame", with base and target values as well as verified value at the end of project. It presents a summary of

implementation of the main activities for the achievement of project objectives and outcomes. The table constitutes a very good evidence-based information for evaluation and therefore forms the basis of the evaluators' rating conclusions about the project.

# Table 3.4: LBCE Project: Monitoring Implementation Progress Towards MeetingDevelopment Objectives.

Activity/Objective	Description of Indicator	<b>Baseline Value</b>	Target Value	Value at End (Year-4)
Goal: Reducing releases	and exposure to uninter	ntional POPs originati	ing from unsustainable was	ste operations.
_	-	-	-	-
<b>Objective:</b> Enhance human health and environmental quality by reducing releases and exposure to unintentional POPs originating from unsustainable waste operations.	# of g TEQ/annum released due to open burning of collected and uncollected municipal waste.	Onitsha: 94.9 g TEQ/a from open burning of collected waste at dumpsites. 7.12 g TEQ/a from open burning of uncollected waste.	<ul> <li>20% reduction in open burning of collected waste at dumpsites and 100% reduction in open burning of uncollected waste:</li> <li>19 g TEQ/a reduction by year 4 from collected waste burning.</li> <li>7.12 g TEQ/a reduction by year 4 from open burning of uncollected waste.</li> </ul>	<ul> <li>18.27% reduction in open burning of collected waste at dumpsites and 75.52% reduction in open burning of uncollected waste.</li> <li>30.05gTEQ/a from the open burning of collected waste from dumpsites.</li> <li>31.01g TEQ/a from open burning of uncollected waste.</li> </ul>
		Kano: 394.2 g TEQ/a open burning of collected waste at dumpsites. 78 g TEQ/a from open burning of uncollected waste.	<ul> <li>20% reduction in open burning of collected waste at dumpsites and 100% reduction in open burning of uncollected waste:</li> <li>78.8 g reduction by year 4 from collected waste burning.</li> <li>78 g TEQ/a reduction by year 4 from open burning of uncollected waste.</li> </ul>	<ul> <li>48.26% reduction in open burning of collected waste at dumpsites and 96.27% reduction in open burning of uncollected waste.</li> <li>90.24gTEQ/a from the open burning of collected waste from dumpsites.</li> <li>119.37g TEQ/a from open burning of uncollected waste.</li> </ul>
	Number of g I-TEQ/a UPOPs reduction calculated per type of cropland (maize and millet) area where burning is reduced.	TBD (g I-TEQ) at project inception.	Reduced by _20%_ g I-TEQ by end of project.	71.53% reduction from open burning of coarse grain cropland - 72.25gTEQ/a
<b>Component 1. Legislative</b>	<b>Strengthening and Poli</b>	icy Development.		
Outcome 1.1: Stakeholders assess and quantify baseline data on UPOPs generation from open burning of MAW.	- Updated MAW source inventory and UPOPs release figures from open burning of MAW.	Preliminary data based upon minimal fieldwork and ground checking.	More comprehensive UPOPs estimate elaborated and adopted by FMoE, incorporated into Stockholm convention report	The two pilot states have baseline UPOPs release data.

	- Updated emission data on UPOPs in pilot states and by projection for the country			
<b>Output 1</b> : Demonstration of Inventory of UPOPs sources and releases in two pilot sites.	# of people trained with demonstrable ability to conduct inventory.	No State-level staff in Nigeria are currently trained to do this	At least 10 staff persons each in Anambra and Kano States and test scores above 80%.	
<b>Output 2</b> : Monitoring and reporting mechanisms in place and operational.	Online reporting format available for each state to fill in online. Interactive website tracking UPOPs reporting from different Nigerian states.	No website or reporting format.	Website with reporting formats for each participating state shows "at a glance" status of UPOPs for each state.	Website with reporting formats for the two participating states in place.
	# of States submitting annual reports on UPOPs from open burning.	No reporting mechanism; not states reporting.	2 states by end of <b>year 1</b> . 10 states by end of <b>year 2</b> . 20 by end of year 3.	Six States (Kano, Anambra, Kwara, Oyo, Niger, Taraba) submitted reports. The project assisted Oyo and Kwara in undertaking a comprehensive UPOPs inventory from open burning of MAW.
<b>Outcome 1.2:</b> Federal waste management policy adopted and UPOPs reduction strategy endorsed.	# of state EPA endorsing draft policy on MAW management.	No MAW management policy in place.	At least 15 state EPAs endorse policy by end of year 3.	15 States have endorsed the National Policy on Municipal and Agricultural Waste Management
	Legislative branch endorses MAW management policy.	No legislative branch endorsement.	Endorsement of policy by Cabinet by end of <b>year 3</b> .	Policy still awaiting Federal Executive Council's (FEC) approval. Change in govt. delayed approval.
	# of Federal Agencies and State EPA adopting new MAW strategy.	No federal or state- level MAW strategies in place.	FMoE endorses strategy by end of <b>year 3.</b> At least – State EPA? Endorse Strategy by end of <b>year 3</b> .	FMoEendorsedStrategy alreagy.Six (6) States (Kano,Anambra,Kwara,Taraba, Jigawa &Niger)endorsedStrategy.
Output 1: National municipal and agricultural waste management policy developed.	Draft and final versions of policy developed and reviewed in timely manner.	No policy developed or in place.	Policy draft completed by end of <b>year 1</b> . Stakeholder review completed by end of <b>year 2</b> . Submitted to legislative branch by beginning of <b>year</b> <b>3</b> of project.	Policy developed but yet to be approved by Federal Executive. Approval delayed by change of administration.
Output 2: Federal UPOPs reduction implementation strategy.	# of people on national committee for waste management trained in MAW UPOPs issues & frequency of committee meetings/year.	No people trained on MAW UPOPs source and release issues. Committee does not meet regularly.	Every member of committee trained by end of year 2. Meeting 2x year by end of year 2.	All members of Committee Trained by 2013. Meetings controlled by FMoE and called as needs arises.
<b>Outcome 1.3:</b> Technical by-laws and guidance adopted by pilot state EPA.	By-laws for MAW management-related UPOPs drafted and	No by-laws or guidance available at	New by-law adopted by at least 2 city councils total in pilot sites by end of year 2.	

site city council.UPOPs.Evidence of the use and application of by-laws and guidance notes in waste management practice.Main elements of guidance notes and by-laws incorporated into work plan materials in each pilot state.Output 1: Technical by- laws, state and municipal guidance covering UPOPs reductions in waste managementNo existing by-laws or regulationsBy-laws drafted by end of year 1.By-laws drafted by end of year 2.By-laws drafted by end of year 1.Output 1: Technical by- laws, state management developed.Guidance notes drafted and adopted in timely manner.No guidance notes. and adopted in timely manner.By-laws adopted by end of year 1.By-laws drafted by end of year 2.Outcome 1.4: Federal and state municipal waste policy setting and enforcement protection officials in protection officials in protection officials in pote state surably improved knowledge and skills.No training in UPOPs management practice minimizing management practice or enforcement of existing environmental polution laws.20 officials in each pilot state have completed training and have measurably improved knowledge and skills.With the training of over 600 scavengers, private waste collectors and officials of the waste management atten, wrothen and UPOPs reduction principles.With the training of to state same now to state same now to state same now to state same now training with IWM and UPOPs reduction principles.% of waste operators in the pilot states are now to state same now to states same now <br< th=""></br<>
No guidance notes/no application of by-laws and guidance notes in waste management practice.No guidance notes/no use.Main elements of guidance notes and by-laws incorporated into work plan materials in each pilot state.Output 1: Technical by- laws, state and municipal guidance covering UPOPs reductions in waste management developed.City council by-laws incorporated into work plan materials in each pilot state.By-laws drafted by end of year 1. Guidance datopted by end of year 2.By-laws drafted by end of year 2.By-laws drafted, reviewed and adopted in timely manner.Outcome 1.4: Federal and state municipal waste policy setting and enforcement capacity increased.Guidance notes drafted environmental pilot sites with work of main actors in waste creation, storage, transportationNo training in UPOPs minimizing management practice environmental poletion officials in environmental minimizing management capacity increased.# of judicial and state environmental pilot sites with pilot sites with pilot sites with pilot sites with pilot sites with pilot sites to be measured at project20 officials in each pilot state have completed training and have environmental polution laws.With the training of over 600 scavengers, private waste collectors and officials of the waste management authorities in the pilot states anow familiar with IWM and UPOPs reduction in the pilot states are now familiar with IWM and UPOPs reduction in the pilot states are now familiar with IWM and UPOPs reduction in the pilot states are now familiar with IWM and UPOPs reductionApproximately 5- to the swe the pilot states more than 50
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familiar with IWM
and UPOPs reduction
Output 1: Strengthened Training needs No training needs Training needs accessment Training needs
capacity in UPOPs assessment assessment completed by EoY 1. assessment done.
minimizing MAW Training workshops on workshops or Training program 50% 60 Environmental
management practice. enforcement, UPOPs materials made completed by EoY 2 and laws enforcement
reducing waste available to officials at 100% completed by EoY 3. officers trained from
management practice. State level.
Component 2. Reduction of UPOPs emissions through new practices/approaches in municipal waste handling.
Outcome 2.1:UPOPsVolume increase in0 tonnes/year.At least 50% of waste60% ofwaste
emissions reduced through waste sorted prior to tonnage collected in each collected as recyclable
municipal waste. waste is largely not pilot site is sorted for materials in Kabuga-
in site where burning materials in each pilot city Ezinifite-Okpuno (
is the norm. by end of project. Anambra) sorted.
Specific incremental No LIDODs specific Onitaba and Kana strategies LIDODs reducing
steps taken to strengthen elements included in revised/strengthened practices such as
baseline IWM strategies baseline IWM w/respect to UPOPs release waste sorting,
withUPOPs-specificstrategies.reductionsandformalizeddumpingat designated
priorities and practices sorting goals and site and prohibition of milestones onen huming of waste

				have been incorporated into the IWM strategies of the pilot States.
	<ul> <li># of dumpsites upgraded to reduce/prevent burning;</li> <li># of hectares of upgraded dumpsite land where burning is impossible.</li> </ul>	Zero Zero	<ul> <li>At least 10 by end of project. Upgrading of designated dumpsite in the 8 LGA of Kano and the 2 LGA of Onitsha by year 2 of project.</li> <li>At least 70 hectares by end of project.</li> </ul>	In all, project upgraded 2 dumpsites upgraded in pilot states (Yadi-Yadi in Kano and Amachara in Anambra). 30 hectares in Kano & 5hectares in Anambra.
Output 1: Introduction of waste separation at selected communities.	Number of residential estate and commercial plazas and institutions that sign on the separation programme in pilot states	No formal waste separation programme	10% of residential estates, commercial and government institutions in pilot states with separation programing place by year 1 of project	250 households, markets around the pilot community and 15 restaurants are participating in the programme in Kano. 560 households, 2 major markets, 2 hotels and 10 restaurants are participating in the waste sorting programme in Awka.
	Level of increase in community awareness.	Baseline TBD at project inception through local surveys.	Community level awareness of UPOPs in Kano and Onitsha cities increased 30% by year 2.	Involvement of relevant waste management stakeholders;Civil Society Organisations/NGOs in the various training programmes undertaken enabled them educate the community. This has resulted in more than 50% increase in UPOPs awareness level in Kano and Onitsha. This was assessed through random interactions with members of these communities.
	Number of State EPA, Waste management authority and community "block leaders" trained in waste sorting.	No EPA, WMA or block leaders identified or trained.	At least 10 EPA and WMA staff trained in each pilot; At least 20 community leaders in each pilot LGA.	
	# of key stakeholders trained in "train the trainer programme on UPOPs reduction sorting".	Stakeholders not assessed or formally recognized or trained.	Citywide train the trainer activities cover 25% of key stakeholders in IWM (state/local government, civil societies, media, private investors).	100 trained as Trainers well above 40 originally planned. Trainers started training others in their organizations.

	Citywide targets for sorting. % of city offices participating in program to sort materials not a priority for recycling.	No targets, not milestones to measure success. None of the city offices or departments within pilot cities participating.	Targets in place as part of approved citywide IWM Strategy by end of project's first 18 months. At least 5 participating by EoY-2; 10 by EoY-3; and 20 by EoY-4.	Ministries of Environment and waste management Agencies in pilot states started waste sorting in their offices
Outcome 2.2: UPOPs emissions reduced through improved composting.	# of neighbourhoods with active sorting and composting programmes in the metropolitan local government areas of pilot states.	No neighbourhoods participating in sorting or composting.	Sorting and composting programmes in 8 local government areas (LGA) of Kano & 2 LGA of Onitsha by end of year 4.	Active sorting in Kabuga-Jambolo, Kano. Kano State made budgetry allocation to replicate same in 7 Local Councils. Active sorting in Okpuno Community, Anambra. Govt pledge to replicate this in all Local councils.
Output 1: Establishment of composting program and collection of compostable waste at communities in 2 pilot cities.	Presence/absence of basic infrastructure for composting (collection, composting, bagging).	None present	Collection and composting infrastructure in place by end of year 1. Bagging of compost underway end of year 3.	2 Compost Plants, one each established in the two project sites in Kano and Anambra.
	# of restaurants participating in composting program.	Zero.	At least 10 by EoY-2; 20 by EoY-3, and 40 by EoY-4.	25 Restaurants, 3 Markets and 2 Hotels participating in waste sorting programme.
Output 2. Develop market for composted matter in pilot areas.	Volume of compost sold to commercial buyers.	Zero.	At least 2 tonnes per quarter sold by end of project.	Ministry of Agric. , Kano, buys all 12 tonnes produced per quarter. Discussion ongoing between compost Plant and farmers for purchase of organic fertilizer produced in plant
Outcome 2.3: Five States participating in federal IMSWM program replicate best practices.	# of states incorporating UPOPs-specific priorities into their IWM strategies.	Zero	At least 5 by end of project.	
	# of states and cities adopting by-laws and guidance notes on UPOPs reducing IWM practices.	Zero	AT least 5 by end of project.	
	# of city and State staff in non-pilot areas trained in UPOPs- reducing practices.	Zero	At least 100 by end of project.	
	# of BAT-BEP for UPOPs reduction developed and circulated for replication.	No BAT-BEP developed in Nigeria for UPOPs.	At least 5 by end of project.	6 BAT-BEP developed
<b>Component 3: Reduction of</b>	UPOPs emissions from ag	gricultural land clearing	•	
Outcome 3.1: Open	# of hectares in which	Zero hectares.	By the end of the project,	843 ha farmland
burning of stubble on farm fields is reduced through	alternative approaches to agricultural waste		alternatives have been introduced in each pilot area	cultivated without burning with 1,134

#### Terminal Evaluation Report of the Project: Less Burnt for a Clean Earth (Minimization of Dioxin Emission from Open Burning Sources in Nigeria)

changes in agricultural practices.	(AW) burning at 3 pilot- sites in Kano state have been introduced by farmers.		of Kano: 20 ha at Mandobi; 20 ha at Danbatta, and 20 ha at Dogwa.	farmers participating in programme.
	Number of hectares of farmland burned in a year.	Hectares of cropland stubble burned/year. Baseline TBD at project inception.	At least 10 farmers not burning cropland in preparation for farming. Hectares/year burned	<ul> <li>347 farmers did not burn their cropland in preparation for farming.</li> <li>98,363.9 ha burned.</li> <li>This is a reduction of 75% from the 2012 level.</li> </ul>
Output 1: Clarification and elaboration of UPOPs challenges in the agricultural sector with a focus on Kano state.	UPOPs agric burning data refined for Kano State; Respective area of lands per crop determined.	No refined data.	Supportive data refined by end of year 1; UPOPs from agric burning clarified and specified by end of year 2.	As of April/may, 2015, the total area of land per crop burnt are Sorghum-47,202.2ha (reduction of 69.16% from 2012 level); Millet-5,261.8ha (reduction of 95.14% from 2012 level); Maize-3,794 ha (reduction of 87.42% from 2012 level); Rice-3,371.4 ha (reduction of 88.88% from 2012 level); Sugarcane-3,873 ha (reduction of 35.45% from 2013 level).
Output 2: Increased level of farmer and agriculture officials awareness of the impact of burning farm fields, both from an agronomic and UPOPs perspective.	% of awareness among clearly defined target groups of farmers and agriculture officials.	Awareness level TBD at project inception. Few farmers are aware of UPOPs releases through burning of agricultural land.	Increase of at least 50% by end of project.	By a survey carried out in April/May 2015 in Dogwa and Danbatta, Kano among 100 randomly selected farmers, more than 50% are aware: (i) that open burning of agricultural land releases UPOPs into the atmosphere, (ii) of the various available alternatives to open burning and (iii) of the economic benefits of these alternatives.
	<ul> <li># of training workshops organized for extension officers and farmers.</li> <li># extension toolkit and # training manuals developed for extension officers and farmers</li> </ul>	Innovative approaches to burning not known.	At least 8 workshops held by project end for extension officers/farmers. 1 Toolkit, 2 training modules by end year 1 and in full use by middle year 2.	The project trained 611 farmers and agricultural extension officers on the various alternatives to open burning of agricultural wastes. Training modules compiled into a training manual.

Output 3: Alternative	# of additional farms	Zero	Alternatives replicated for at	Replicated in more
approaches to stubble	replicating alternative		least 20 additional farms	than 50 farms across
burning at pilot sites in	approaches to burning.		across Kano.	eight Local
Kano introduced and				Government Areas of
replicated.				Kano State
_				The conversion of
				crop residues into
				animal feeds was
				replicated in Bauchi,
				Katsina and Jigawa
				States, with
				Individual farmers
				purchasing 3
				shredding machines

108. The overall results of the project are quite impressive and of good quality when measured against objectives and targets set. As shown in Table 3.5, the basic project objectives have been achieved in most cases and even surpassed in some cases. The project and results are also found to be relevant. Performance on all evaluation points was rated satisfactory and in fact highly satisfactory with respect to M&E (EA).

	UPOPs Red	luction Tar	gets and Lev	els Achieved				
Waste Burning		K	ano			Onit	sha	
Activity	Tar	get	Achi	eved	Tai	rget	Ach	ieved
	Per Cent	g TEQ/a	Per Cent	g TEQ/a	Per Cent	g TEQ/a	Per Cent	g TEQ/a
Open Burning of Collected Waste at Dumpsites	20	-78.8	48.26	-90.24	20	-19	18.27	-30.05
Open Burning of Uncollected Waste at Dumpsites	100	-78	96.27	-119.37	100	-7.12	75.52	-31.01
	Per Cent	l g TEQ∕a	Per Cent	l g TEQ/a	Per Cent	l g TEQ/a	Per Cent	l g TEQ/a
Open Burning of Cropland	N/A	5.5	71.53	-72.25	N/A	N/A	N/A	N/A

 Table 3.5: LBCE Project: Levels of UPOPs Reduction Achieved by Project.

109. It is however noted that a number of loose ends still remained before project closure especially as they relate to by-laws and legislation and concrete confirmation of financial resources for project continuity. These have the ability of putting the continuity and sustainability of the project at risk, making the project to be rated moderately likely (ML) on that point. Table 3.6 shows the detailed project implementation ratings undertaken.

110. Overall project performance has been rated satisfactory.

**Overall Results: Satisfactory (S)** 

## **Table 3.6: LBCE Project: Detailed Project Implementation Ratings**

State/Location/Activity	Out come s	Rele vanc e	Effec tiven ess	Effici ency	Susta inabi lity	Repli cabil ity	Impa ct	M& E (IA)	M& E (EA)	IA Exec ution	EA Exec ution	EA Exec ution (Stat e)
LBCE PROJECT OVERALL*	S	R	S	S	ML	S	S	MS	HS	S	S	S
ANAMBRA STATE ACTIVITIES	S	R	S	S	ML	S	S	MS	HS	S	S	S
KANO STATE ACTIVITIES	S	R	S	S	ML	S	S	MS	HS	S	S	S
Project Components												
Component 1: Legislative S	Component 1: Legislative Strengthening and Policy Development											
Anambra State	S	R	S	S		S	S	MS	HS	S	S	S
Kano State	S	R	S	S		S	S	MS	HS	S	S	S
Component 2: UPOPs Redu	Component 2: UPOPs Reduction through Best Practices in Municipal Waste Handling											
Anambra State: Onitsha	S	R	S	S	ML	S	S	MS	HS	S	S	S
1. Collected Waste Dump Sites	S	R	S	S	ML	s	S	MS	HS	S	S	S
2. Uncollected Waste Dump Sites	S	R	S	S	ML	S	S	MS	HS	S	S	S
Kano State: Kano	S	R	S	S	ML	S	S	MS	HS	S	S	S
1. Collected Waste Dump Sites	S	R	S	S	ML	S	S	MS	HS	S	S	S
2. Uncollected Waste Dump Sites	S	R	S	S	ML	S	S	MS	HS	S	S	S
Component 3:UPOPs Redu	ction thro	ough Bes	t Practice	es in Ope	n Burnin	g of Crop	oland					
Kano State	S	R	S	S	ML	S	S	MS	HS	S	S	S
1. Croplands	S	R	S	S	ML	S	S	MS	HS	S	S	S

\* LBCE Project Overall: The LBCE project as it affects the pilot states in particular as well as the Nigerian Federal system in general.

#### NOTES:

1) The rating "S" stands for "Significant" for the criterion *Impact* (on a scale of 1-3 with 3 as "Significant") For all other criteria "S" stands for "Satisfactory" (on a scale of 1-6 with 6 as "Highly Satisfactory), while "MS" stands for "Moderately Satisfactory".

2) The rating "ML" (on a scale of 1-4 with 4 as "Likely") for the criterion *Sustainability* stands for "Moderately Likely", i.e. there are moderate risks to sustainability of the outcomes of the respective activities or project, in this project, mainly due to lack of adequate counterpart funding.

## 3.3.2 Project Relevance

111. Within the context of the Global Environment Facility (GEF)-supported project, which is in line with GEF Operational Programme, the Less Burnt for a Clean Earth Project (LBCEP) seeks to reduce releases and exposure to UPOPs originating from unsustainable waste management operations in the pilot states, thereby enhancing human health and environmental quality, at the two project sites. This section discusses the relevance of the project linkages to global development objectives, national priorities, action plans and programmes.

#### 3.3.2.1 Multilateral Conventions and GEF Objectives

112. The emphasis of Nigeria's LBCE Project on supporting planning and policy initiatives for tackling various waste streams under the Integrated Waste Management Strategies is highly aligned with the strategic focus of GEF-4 as it relates to UPOPs. Support to planning and policy development was at the core of the outcomes of the Project, as it directly assisted the planning of detailed action for tackling the various waste streams under the Integrated Waste Management Strategies. The support to policy development and planning has been described as timely and urgent at an early stage when the country is taking tangible steps in introducing technologies and approaches under its Integrated Waste Management Programme.

113. The approach adopted in the implementation of the Project was also in line with GEF-4 strategies that encourage the use of small-scale demonstration and promotion or alternative "practices to prevent or reduce the generation and/or release of POPs" as included under the objective of Strategic Programme 2 (*Partnering in Investments for NIP Implementation*). Moreover, the project, by focusing "on introducing new practices and approaches and building capacity to international standards and to ensuring that the institutional abilities and policy framework are adequate to support action to better understand UPOPs and reduce their releases" aligned itself with GEF project area of interest.

114. The outputs and activities of the LBCE Project, particularly those related to (i) development of policy and regulations in order to reduce uncontrolled burning of waste and hence reducing Unintentional POPs emissions; and (ii) introducing and demonstrating Stockholm Convention approved BAT/BEP approaches in several sectors where absence of such best practices was resulting in considerable UPOPs emissions, were in line with GEF-4's programme strategic priorities.

115. In addition to the above, the objective of the LBCE Project met the objective of the Stockholm Convention, that is "...protect human health and the environment from persistent organic pollutants" within the major goal of achieving the continuing reduction and where feasible, the total elimination of UPOPs as listed under Annex C, Part1 of the Convention. Arcticle 5 of the Convention recommends that in order to achieve the objective, Parties are required "to identify, characterize, quantify and prioritize sources of releases of Unintentional persistent organic

pollutants (UPOPs) and develop strategies with measures, timelines and goals to minimize or eliminate these releases". Parties are also required to implement best available techniques (BAT) and best environmental practices (BEP) for the sources listed under Annex C, Parts II and III. All of these, the LBCE project tried to achieve.

116. By developing legislative guidance, which activities were "consistent with action included in POPs Strategic Programme 1 on Strengthening capacities for NIP implementation particularly concerning legislation and enforcement", the LBCE Project has enabled Nigeria's contribution to the overall objectives of both the Stockholm Convention and GEF-4 Strategic Programme Priorities. Overall, the project shows relevance to the Multilateral Stockholm Convention and GEF-4 programmes.

#### 3.3.2.2 Millennium/Sustainable Development Goals (MDGs/SDGs).

117. The LBCE Project's objective of reducing the emissions of UPOPs towards reducing their adverse impacts on the environment is closely linked and highly relevant to the 7<sup>th</sup> Millennium Development Goals (MDG), which aims at ensuring environmental sustainability, and restoration of natural resources, as well as the 12<sup>th</sup> of the new Sustainable Development Goals (SDGs) of ensuring sustainable consumption and production patterns. The introduction of policy measures and abatement techniques to encourage less burning of agricultural residues and other wastes (e.g. municipal waste) is a significant progress being made in the country to reduce emissions of UPOPs, particularly dioxins, and promote environmental sustainability.

## 3.3.2.3 Country Driveness

118. The Terminal Evaluation (TE) Team was of the view that the project's relevance identified during its formulation and implementation remained valid.

The 2007 National Implementation Plan (NIP) for the Stockholm Convention on POPs, which ranked UPOPs generated by uncontrolled burning of municipal waste and agricultural land as one of the key environmental challenges facing Nigeria and upon which LBCE Project was built, continues to drive the process for the regulatory strengthening and development of policy guidance and coordination for the country's response to the challenges of UPOPs. The draft NIP action plan called for further action under measure 3.3.7 to *"reduce releases from unintentional production"*, as well as:

- Review and develop by-laws, guidelines and procedures for uncontrolled burning activities;
- Intensify on-going educational and awareness programmes on effects of uncontrolled burning activities; and
- Develop alternative methods of preparing farm fields for cultivation instead of burning.

119. To further demonstrate the continued relevance of the 2007 NIP for the Stockholm Convention on POPs to the country, the Federal Government of Nigeria took action for tackling the problem of waste management in major population centres of the country by assisting 7 cities to develop Integrated Waste Management Strategies (IWMS) and granted about US\$ 2 million to each participating city to implement strategies and measures that would lead to significant decreases in

emissions from the 'waste' sector. The LBCE project complemented this national effort, thereby making it relevant also to the nation.

120. In view of all of the above the LBCE project has been rated Relevant.



## 3.3.3 Effectiveness and Efficiency

#### 3.3.3.1 *Effectiveness*

121. Effectiveness relates to the extent to which expected outcomes and objectives have been achieved. Juxtaposing project's planned outcomes with actual, the project has to a great extent achieved its objectives. The UPOPs emission reduction targets set in respect of open burning of collected and uncollected municipal wastes as well as open burning of agricultural wastes were met and surpassed in some cases. Through this the project had contributed to the achievement of global environmental benefits as envisioned at project commencement. Although the project had not been able to get some regulations adopted, it had impacted and will continue even after closure to impact the lives of the people in the immediate project area in a positive way. Hence with respect to effectiveness the project has been rated satisfactory.

#### **Project Effectiveness: Satisfactory (S)**

#### 3.3.3.2 Efficiency.

122. The LBCE project has been implemented in an efficient manner in line with both international and national norms and standards. Project managers at both the Federal and State levels made good and effective use of financial resources provided. An examination of the financial books of the project with respect to some selected activities for which competitive biddings were undertaken showed the processes ending in cost-effective results. It was also noted that the project was subjected to yearly financial auditing exercises, the results of which had been positive. The evaluators had rated the project on the subject of efficiency as satisfactory.

#### **Project Efficiency: Satisfactory (S)**

# 3.3.4 Country Ownership

123. The LBCE Project was based on the strategic decision of the Government of Nigeria to reduce emissions of UPOPs from its waste sector. The project was intended to effectively reduce UPOPs releases in two pilot areas and address the policy, technical and institutional root causes to enable Nigeria to more easily replicate UPOPs-specific activities.

124. The discussion of the TE Team with the Project's key stakeholders indicated their general commitment and ownership of the project. The level of awareness among policy/decision-makers regarding the LBCE Project was high. The government officials that the evaluators interacted with displayed good knowledge of the project and showed sincere commitment to the project.

125. The commitment of all stakeholders in educational institutions, especially in Kano State was very high. They had full grasp of technical needs of the project. Farmers and community groups that participated in the project activities the evaluators interacted with showed a lot of enthusiasm towards the project. There was a good coordination among many of the stakeholders. The stakeholder participation and their ownership of the project were excellent. The above discussion is evident of the strong level of country ownership of the project.

# 3.3.5 Mainstreaming

126. At the international levels, the LBCE project is well streamlined. It is obvious, from our previous discussions in this report that the objectives and intended outcomes of the LBCE Project fitted well into the UNDP focal areas for the country and also conformed to GEF-desired outcomes towards global environmental benefits.

127. At the national level, and in relation to mainstreaming, the following were evident:

- Some local areas in Kano State had banned the burning of agricultural wastes. By this action, the less burnt principle was being rapidly mainstreamed into the farming practices of the local people.
- Related to the above was a new definition given to "waste". Interacting with the farmers and cattle rearers during the field visit in Kano, especially in Doguwa, the evaluators noted that there was a change in the way the local people perceived "waste". To them agricultural residue was no longer for burning because it was regarded as a "valuable resource". In fact farmers will now not give away their agricultural "wastes" without the material having been paid for. This perception was being mainstreamed fast into the farming lives of farmers in these local areas. The end result of these developments would be improvement in the income earning capacity of these farmers and others who are likely to learn from them.
- In the course of implementing the LBCE project, some new waste management practices were taken on by government officials of the two pilot states. These practices actually became mainstreamed into the working systems of, for example, the Refuse Management and Sanitation Board (REMASAB), Kano and Anambra State Waste Management Authority (ASWAMA), Awka, Anambra State.

- Prior to project implementation the population around the many unofficial dumping sites in project area were exposed to health hazards relating to improper waste disposal. The reduction in dumping sites and effective waste management resulting from the project must have had a positive effect on the health of these people. There is the real possibility of reduction in vector borne diseases such as malaria resulting from drastic reduction in breeding sites of mosquitoes hitherto made possible by widely dispersed empty plastic and other wastes.
- As indicated earlier the LBCE Project Document did not explicitly discuss gender issue. The issue was, however, observed to have been mainstreamed into the implementation of the project. Beside a female member of the Steering Committee and another of the staff of the PMU, except for cattle rearing several women were actively involved in the other two major activities of the project, namely farming and waste picking. While it was difficult to estimate the percentage of the beneficiary farmers who were women anecdotal reports showed that a sizable number of women could benefit from the project's outcomes. Many women also actively participated in the waste sorting aspect of the project at both pilot sites. In the Anambra State it was estimated that about 35% of the waste pickers were female waste pickers. These women were trained to form Waste Pickers Associations which would enable them to have easier access to assistance from State government to further develop their trade and improve their standard of living.

# 3.3.6 Sustainability

128. Sustainability is generally considered to be the likelihood of continued benefits after the project ends. The project design took into account the need for sustainability. It was on this account that the two pilot states were selected for the project because prior to project design the two had demonstrated commitment to making investments in improved integrated waste management. Kano was selected as the agricultural waste pilot area because it was involved in the Fadame III agricultural development programme with large investments in improving agricultural economics.

129. In line with GEF guidelines therefore, the project was evaluated on the likelihood of risks against sustainability resulting from financial, socio-political, institutional and environmental factors and issues of governance.

# 3.3.6.1 Financial Risks

130. Availability of financial resources for continuation of project is very crucial and fundamental to sustainability. The partner state governments have pledged not only to continue to support and sustain the project but also replicate in other local government areas. With respect to municipal waste component of the project, sustainability was assured to some extent because the project had already been mainstreamed into the workings of existing government-funded waste management organisations. However, project expansion to other local government areas could be at risk because at close of project the pledged funds were not yet physically on ground but still at the "promise level".

131. Also for the agricultural waste component, financial resources needed for continuance and replication of the project were also not physically on ground but still at the promise level. Efforts to resolve this important issue should continue to be pursued by the partner States' Ministries of Environment, waste management units and other state stakeholders. The Federal Ministry of Environment should in fact join in this by prodding the state partners to act on this matter.

132. Thus the financial risks to sustainability of the project's outcomes have been rated as Moderately Likely.

## Project Financial Sustainability: Moderately Likely (ML)

#### 3.3.6.2. Socio-political Risks

133. In the opinion of the evaluators, there seemed to be no serious obstacles presenting themselves as serious socio-political risks to sustainability of the project's outcomes. The stakeholders at the local levels were very much aware and well motivated for project continuance. The new government regards itself as "progressive" which improves the likelihood of government support for the project which is also considered as "progressive" by its results.

134. Thus there appeared to be negligible socio-political risks to sustainability of the project's outcomes. Therefore project sustainability on account of socio-political risks was rated as Likely (L).

**Project Socio-Political Sustainability: Likely (L)** 

#### 3.3.6.3. Institutional and Governance Risks

135. The Federal and State government participants are likely to maintain their government employment. This means that the human capacity stocks built during project implementation will still likely to be available in the immediate future which tends to reduce the risks to sustainability. It has to be noted however that there is the possibility of moving already trained and quite knowledgeable project staff to other government departments where such knowledge may not be of direct relevance.

136. The issue of getting the laws and legislations already drafted endorsed by the legislative arm of government may constitute a moderate risk to project sustainability. The risks to sustainability to the project outcomes arising out of institutional and governance issues were rated as Moderately Likely.

3.3.6.4.

# Project Institutional and Governance Sustainability: Moderately Likely (ML)

## Environmental Risks

137. The evaluators did not have sufficient information to realistically discuss and rate this item.

138. Overall, and on account of the discussions above project likelihood of sustainability was rated as moderately likely.

Project Sustainability: Moderately Likely (ML)

# 3.3.7 Impact

139. There were indications that the project had contributed to as well as facilitated progress towards the reduction of environmental stress. The following achievements enabled the evaluators to reach the conclusion that the LBCE Project attained its goals and objectives of contributing to the reduction of UPOPs emissions from waste:

- ✤ Using UNEP Toolkits UPOPs emission from the open burning of collected waste from 11 dumpsites in Onitsha metropolis was calculated to be 134.45gTEQ/a and from uncollected waste to be 10.05gTEQ/a. This was a reduction as compared to 2012 levels (baseline at project inception) of 18.27% (i.e. 30.05gTEQ/a) in open burning of collected waste at dumpsites and 75.52% (i.e. 31.01gTEQ/a) in open burning of uncollected waste.
- UPOPs emission from the open burning of collected waste at 32 dumpsites located in Kano metropolis was 96.76gTEQ/a and from uncollected waste was 4.63gTEQ/a. These values were calculated using the UNEP toolkits. This showed a reduction from 2012 levels (baseline at project inception) of 48.26% (i.e. 90.24gTEQ/a) in open burning of collected waste at dumpsites and 96.27% (i.e. 119.37gTEQ/a) in open burning of uncollected waste.
- UPOPs emission from open burning of coarse grain cropland covering 1,773,930 hectare was 28.75gTEQ/a. The emission value was calculated using the UNEP toolkits. This was a reduction of 72.25gTEQ or 71.53% from the 2012 level.

The above undoubtedly translates to global environment benefits that have enabled progress toward reduced environmental stress.

140. Also, the project has positively impacted participants at the two pilot sites. The evaluators assessed the intended changes in development and LBCE conditions resulting from the interventions of the project. Also of interest was the determination of the extent of changes that had occurred in the lives of the communities concerned, particularly farmers and to what extent the burning of waste conditions changed in the various pilot sites. In particular, we used the perception

of the major stakeholders to assess the progress made by the project towards attaining its development objective of contributing significantly to reducing the emissions of UPOPs and curtailing their environmental threats in the country.

141. Interacting with the farmers and cattle rearers in the field, the evaluators noted that there was a positive change in how they now perceived "waste". To them agricultural residue was no longer for burning because it was regarded as valuable resource. In fact waste has been given a different definition for farmers will not now give away their agricultural "wastes" without getting paid for it. This change in perception is an indication of the progress made by the project towards attaining its development objective of reducing UPOPs emission, which has the potential of helping to curtail environmental threats in the country.

142. The overall effect of the change in perception of agricultural residue as now a valuable resource has had tremendous impact on the participating communities. For example, the Head of Doguwa village in Kano State told evaluators that it had become illegal for people to burn agricultural residue. This has paved the way for the improvement of the socio-economic conditions of the local people. Beyond the community level, the LBCE project-induced change in attitude to the burning of agricultural residue has also the potential of influencing policy decisions at the State level. The Kano State Government now considers the LBCE Project a very unique project that has created a change in attitudes regarding "waste" that could be used to influence State policy decision on agricultural waste product management, which when made will undoubtedly impact more lives in the state.

143. Based on the discussions above the impact of the LBCE project was rated as satisfactory.



## 3.3.8 Summary of Implementation Ratings

144. The summary of implementation ratings discussed above is provided in Table 3.7 below.

Evaluation Ratings:			
1. Monitoring and Evaluation	Rating	2. IA & EA Execution	Rating
M&E design at entry	S	Quality of UNDP Implementation –	S
		Implementing Agency (IA)	
M&E Plan Implementation	S	Quality of Execution - Executing Agency (EA)	HS
Overall quality of M&E	S	Overall quality of Implementation / Execution	HS
3. Assessment of Outcomes	Rating	4. Sustainability	Rating
Relevance	R	Financial resources:	ML
Effectiveness	S	Socio-political:	L

 Table 3.7: LBCE Project Implementation Rating: Summary

#### Terminal Evaluation Report of the Project: Less Burnt for a Clean Earth (Minimization of Dioxin Emission from Open Burning Sources in Nigeria)

Efficiency	S	Institutional framework and governance:	ML
Replicability	S	Environmental:	n/a
Overall Project Outcome Rating	S	Overall likelihood of sustainability:	ML
Impact	S		

## **CHAPTER 4: CONCLUSIONS, LESSONS LEARNED AND RECOMMENDATIONS**

145. This section describes the conclusions arising from the LBCE project terminal evaluation exercise, the lessons learnt and recommendations which could assist in the planning and implementation of future or similar projects.

#### 4.1 Conclusions

146. The evaluators, having critically studied the LBCE project through examination of the project document, various project implementation reports and responses from questionnaires and through field visits, interviews and dialogue with several stakeholders at all levels, came to the following conclusions about the project:

- (i) The project document has been well prepared, having dealt with all relevant aspects in an understandable manner. The document with its logical frame's indicators, base values, target values and means of verification constituted a solid foundation for a successful project implementation. The managers of the project admitted to having followed it religiously for guidance. The document however seemed to have some gaps in its consideration of an "exit strategy" as it relates to sustainability.
- (ii) The project ran smoothly and achieved project objectives, even surpassing set targets in some cases. In Onitsha, UPOPs emissions from open burning of **collected** and **uncollected** wastes dropped by 18.27% and 75.5% respectively, while in Kano the corresponding figures were 48.26% and 96.27% respectively.
- (iii) The Project Steering Committee (PSC) performed well their oversight function of giving strategic guidance to the project.
- (iv) The Project Management Unit (PMU) and project execution units in the two partner states conducted required tasks well and had high standards in reports and document preparation. The co-ordination and risk management expertise of the PMU came to fore in the way the project risk situation in Anambra State was tackled which minimized the negative impact of the delay experienced.
- (v) Notwithstanding the delays in fund releases which have been discussed elsewhere in the report the control and general oversight exercised by UNDP-CO on project fund disbursements enhanced the success of project implementation.
- (vi) The project has produced some notable outcomes and impacts on the local communities. It has improved the socio-economic conditions of farmers, cattle rearers, and built capacities of both management and local farmer/cattle rearer stakeholders.

- (vii) "Waste" has been given a different value-oriented definition by farmers, who now see their farm "waste" as a "resource" which they will not now freely give away without it being paid for. This perception makes them unwilling to burn their farm residue as they used to do but convert same to animal feeds or manure.
- (viii) NESREA replicated the project in Ilokun and Erinfun/Emirin areas of Ado-Ekiti in Ekiti State and Rumuokpolu Elizu area of Port Harcourt in Rivers State, thus expanding the utility of the project.
- (ix) On account of the results that have been achieved by the project, some Development Partners, including the World Bank and DFID, have indicated interest in supporting large scale up-scaling of the project in many parts of the country for enhanced intervention impact. This attests to the relevance of the project's results to core programmes of some of the international development assistance agencies and its significance as engine of socio-economic and environmental advancement.
- (x) Based on the achieved reductions in UPOPs releases at the two pilot sites, the evaluation team observed that, with effective replication of the current project's incremental inputs, it is quite feasible/possible with future activities to reduce, nationwide, municipal waste burning by 20% with a corresponding 20% reduction in UPOPs releases from open burning of MAW, translating to about 1,060 g I-TEQ a year.

## 4.2 Lessons Learned

- 147. Among the lessons learned implementing the Less Burnt for a Clean Earth project are:
  - (i) "Agricultural Waste" in the project area has assumed a different definition where it is now seen as a "Resource" that has value, which perception helps to motivate farmers not to continue to burn their farm residues but turn them into animal feed or manure.
  - (ii) Efforts to reduce UPOPs emissions from open burnt sources could also lead to reduction in the amount of CO2 and methane released into the atmosphere. This actually happened in the LBCE case, under which CO2 and methane reductions was recorded.
  - (iii) Intangible environmental project objectives are better achieved when project brings direct and feasible benefits to stakeholders. This was the case with the LBCE project. The intangible "UPOPs emission reduction" objective of project was amazingly achieved because the project brought direct and tangible benefits to stakeholders

- (iv) The adoption of the Less Burnt waste Management concept is a life transforming experience for the average cattle Fulani man that took part in the project. Through the alternative practices to burning taught under the project:
  - He could convert bushes to animal feeds, translating to the fact that he could now settle in a place instead of wandering
  - Children would be able to go to school unhindered because they could now settle instead of constantly moving.
  - His using of feeds from shredder had increased the size of animals and also increased milk yields.
- (v) The use of the Less Burnt livestock feeds production method has the ability of reducing Fulani Cattle Rearers and Farmers conflicts which is so rampart all over the nation.
- (vi) The control of fund disbursement to project by UNDP-CO enhanced the success of project implementation.
- (vii) The Project Document with its well-articulated logic frame provided adequate guidance for project implementation and assisted project managers in their annual work planning and budgeting.

## 4.3. Recommendations

148. The following recommendations are made for the consideration of respective federal and state authorities and other organizations, in particular those responsible for or engaged in minimization of UPOP releases and generally promotion of more environmentally friendly municipal waste management and sound environmental friendly agricultural practices.

- (i) Achieving sustained transformational change is not a simple task and is impossible to achieve within a four year project period. This requires long-term commitments, persistency and perseverance. In view of this, it is recommended that the pledged continuance of the principles and ideals of the Less Burnt Project by the two government partners should be pursued and emphasized during the immediate post-project period by the Federal Ministry of Environment.
- (ii) The LBCE project had impressive outcomes. The success should be made known. Its outcomes should be widely disseminated among stakeholders and other people. A cost effective way of doing this is through the project website which is being transferred to the Federal Ministry of Environment. The Ministry should ensure that the site stays open and accessible to the public.
- (iii) Some legislations have been drafted under the project ready for presentation to the legislative arm of government for passage. The Federal Ministry of

Environment should continue to work hard to see that the legislations are endorsed.

- (iv) The animal feeds production method as thought under the LBCE project should be explored further to solve the socio-economic problems that often lead to insistent conflicts between Fulani cattle rearers and farmers all over Nigeria. The use of the method will enable Fulani cattle rearers to settle, able to farm and send their children to school without problem.
- (v) Future projects should consciously consider and integrate gender issues into project right from the design stage.
- (vi) In order to ease transfer of knowledge, some of the technical documents produced under the project should be translated to relevant local languages in summary form for use by people at the grass root level. This will also assist in project sustainability and replicability.
- (vii) The state partners should broaden the expertise base of the UNEP Toolkits through in-house training which is possible to be undertaken with minimal financial outlay. This will be catalytic to project sustainability and replication. For future project designs, the issue of sustainability should be planned in a way that funds for sustainability could be secured physically six to twelve months before project closure. In this way it will be possible to transfer experience and expertise acquired during project implementation seamlessly for project continuation.

ANNEXES

# A: Terms of Reference (ToR)

In accordance with UNDP and GEF M&E policies and procedures, all full and medium-sized UNDP support GEF financed

projects are required to undergo a terminal evaluation upon completion of implementation. These terms of reference (TOR) sets out the expectations for a Terminal Evaluation (TE) of the *Less burnt for a clean Earth: Minimization of dioxin emission from open burning sources in Nigeria Project* (PIMS # 4221)

The essentials of the project to be evaluated are as follows:

Project Title:	Project Title: Less Burnt for a Clean Earth: minimization of dioxin emission from open burning sources in Nigeria						
GEF Project ID:		3804		<u>at e</u>	endorsement (Million <u>US\$)</u>	<u>at completion</u> (Million US\$)	
UNDP Project ID:		PIMS # 4221, Atlas Project # 75041	GEF financing: \$4,150,000		<mark>4,150,000</mark>		
Country:		Nigeria	IA/EA own:	IA/EA own: Nigeria's Federal Ministry of Environment			
I	Region:	Africa	Government (in-kind):	\$19,700,736		<mark>11,150,000</mark>	
Foca	al Area:	POPS	Other: UNDP Regular TRAC	\$100,000		<mark>\$100,000.</mark>	
FA Objo (C	ectives, DP/SP):	FP	Total co-financing:	\$19,800,736		<mark>11,250,000</mark>	
Ex. A	ecuting Agency:	Federal Ministry of Environment	Total Project Cost:	\$23,950,736		<u>15,400,000</u>	
Other F	Partners	UNDP, Kano	ProDoc Signature (date project began): 30th July 2010			20th April 2011	
		and Anambra States	(Operational) Closing D	Date: Proposed: 29 <sup>th</sup> July 2014		Actual: 29 <sup>th</sup> July 2015	

#### PROJECT SUMMARY TABLE

#### **OBJECTIVE AND SCOPE**

The project was designed to: enhance human health and environmental quality by reducing releases and exposure to unintentional Persistent Organic Pollutants (UPOPs) originating from unsustainable municipal and agricultural waste operations. This objective is to be achieved through the project three components:

- Component 1-legislative strengthening and policy development.
- **Component 2**-reduction of UPOPs emissions through introduction of new practices and approaches in municipal waste handling.
- Component 3-reduction of UPOPs emissions from burning of farm fields in preparation for planting.

The TE will be conducted according to the guidance, rules and procedures established by UNDP and GEF as reflected in the UNDP Evaluation Guidance for GEF Financed Projects.

The objectives of the evaluation are to assess the achievement of project results, and to draw lessons that can both improve the sustainability of benefits from this project, and aid in the overall enhancement of UNDP programming.

#### EVALUATION APPROACH AND METHOD

An overall approach and method<sup>2</sup> for conducting project terminal evaluations of UNDP supported GEF financed projects has developed over time. The evaluator is expected to frame the evaluation effort using the criteria of **relevance**, effectiveness, efficiency, sustainability, and impact, as defined and explained in the <u>UNDP Guidance for Conducting Terminal Evaluations of UNDP-supported, GEF-financed Projects</u>. A set of questions covering each of these criteria have been drafted and are included with this TOR (<u>Annex C</u>) The evaluator is expected to amend, complete and submit this matrix as part of an evaluation inception report, and shall include it as an annex to the final report.

The evaluation must provide evidence-based information that is credible, reliable and useful. The evaluator is expected to follow a participatory and consultative approach ensuring close engagement with government counterparts, in particular the GEF operational focal point, UNDP Country Office, project team, UNDP GEF Technical Adviser based in the region and key stakeholders. The evaluator is expected to conduct a field mission to (Kano and Anambra States), including the following project sites (Dambatta, Doguwa, Kabuga-Jambolo and Ezinifite-Okpuno ). Interviews will be held with the following organizations and individuals at a minimum: Federal Ministry of Environment, Kano State Ministry of Environment, Kano State Agricultural & Rural Development Authority, Kano State Refuse Management & Sanitation Board, Anambra State Ministry of Environment, Anambra State Waste Management Authority, Residents of kabuga-Jambolo and Ezinifite-Okpuno Communities, Members of the Project Steering Committee, Agricultural Programme Coordinators in Dambatta and Doguwa; and Farmers.

The evaluator will review all relevant sources of information, such as the project document, project reports – including Annual APR/PIR, project budget revisions, midterm review, progress reports, GEF focal area tracking tools, project files, national strategic and legal documents, and any other materials that the evaluator considers useful for this evidence-based assessment. A list of documents that the project team will provide to the evaluator for review is included in <u>Annex B</u> of this Terms of Reference.

#### **EVALUATION CRITERIA & RATINGS**

An assessment of project performance will be carried out, based against expectations set out in the Project Logical Framework/Results Framework (see <u>Annex A</u>), which provides performance and impact indicators for project implementation along with their corresponding means of verification. The evaluation will at a minimum cover the criteria of: **relevance**, **effectiveness**, **efficiency**, **sustainability and impact**. Ratings must be provided on the following performance criteria. The completed table must be included in the evaluation executive summary. The obligatory rating scales are included in Annex D.

Evaluation Ratings:						
1. Monitoring and Evaluation	rating	2. IA& EA Execution	rating			
M&E design at entry		Quality of UNDP Implementation				
M&E Plan Implementation	Quality of Execution - Executing Agency					
Overall quality of M&E		Overall quality of Implementation / Execution				
3. Assessment of Outcomes	rating	4. Sustainability	rating			
Relevance		Financial resources:				
Effectiveness		Socio-political:				
Efficiency		Institutional framework and governance:				
Overall Project Outcome Rating		Environmental:				
		Overall likelihood of sustainability:				

#### **PROJECT FINANCE / COFINANCE**

The Evaluation will assess the key financial aspects of the project, including the extent of co-financing planned and realized. Project cost and funding data will be required, including annual expenditures. Variances between planned and actual expenditures will need to be assessed and explained. Results from recent financial audits, as available, should be taken into consideration. The evaluator(s) will receive assistance from the Country Office (CO) and Project Team to obtain financial data in order to complete the co-financing table below, which will be included in the terminal evaluation report.

Co-financing	UNDP own financing		Government		Partner Agency		Total	
(type/source)	(mill. US\$)		(mill. US\$)		(mill. US\$)		(mill. US\$)	
	Planned	Actual	Planned	Actual	Planned	Actual	Actual	Actual
Grants								
Loans/Concessions								

<sup>&</sup>lt;sup>2</sup> For additional information on methods, see the <u>Handbook on Planning, Monitoring and Evaluating for</u> <u>Development Results</u>, Chapter 7, pg. 163

•	In-kind support				
•	Other				
Totals					

#### MAINSTREAMING

UNDP supported GEF financed projects are key components in UNDP country programming, as well as regional and global programmes. The evaluation will assess the extent to which the project was successfully mainstreamed with other UNDP priorities, including poverty alleviation, improved governance, the prevention and recovery from natural disasters, and gender.

#### IMPACT

The evaluators will assess the extent to which the project is achieving impacts or progressing towards the achievement of impacts. Key findings that should be brought out in the evaluations include whether the project has demonstrated: a) verifiable improvements in ecological status, b) verifiable reductions in stress on ecological systems, and/or c) demonstrated progress towards these impact achievements.<sup>3</sup>

#### **CONCLUSIONS, RECOMMENDATIONS & LESSONS**

The evaluation report must include a chapter providing a set of **conclusions**, **recommendations** and **lessons**.

#### IMPLEMENTATION ARRANGEMENTS

The principal responsibility for managing this evaluation resides with the UNDP CO in Nigeria. The UNDP CO will contract the evaluators and ensure the timely provision of per diems and travel arrangements within the country for the evaluation team. The Project Team will be responsible for liaising with the Evaluators team to set up stakeholder interviews, arrange field visits, coordinate with the Government etc.

#### **EVALUATION TIMEFRAME**

The total duration of the evaluation will be 30 days over a time period of 11 weeks according to the following plan:

Activity	Timing	Completion Date		
Preparation	3 days	19-20 <sup>th</sup> February 2015		
Evaluation Mission	15 days	9-23 <sup>rd</sup> March 2015		
Draft Evaluation Report	<i>10</i> days	Between: 24th March- 14th April 2015		
Final Report	2 days	Between: 29 <sup>th</sup> April- 6 <sup>th</sup> May 2015		

#### **EVALUATION DELIVERABLES**

The evaluation team is expected to deliver the following:

Deliverable	Content	Timing	Responsibilities
Inception Report	Evaluator provides clarifications on timing and	No later than 2 weeks before the evaluation mission: 23rd	Evaluator submits to UNDP CO
	method	February, 2015	
Presentation	Initial Findings	End of evaluation mission: 23rd March, 2015	To project management, UNDP CO

<sup>&</sup>lt;sup>3</sup> A useful tool for gauging progress to impact is the Review of Outcomes to Impacts (ROtI) method developed by the GEF Evaluation Office: <u>ROTI Handbook 2009</u>

Draft Final Report	Full report, (per annexed template) with annexes	Within 3 weeks of the evaluation mission: by 14th April 2015	Sent to CO, reviewed by RTA, PCU, GEF OFPs
Final Report*	Revised report	Within 1 week of receiving UNDP comments on draft: by 6 <sup>th</sup> May 2015	Sent to CO for uploading to UNDP ERC.

\*When submitting the final evaluation report, the evaluator is required also to provide an 'audit trail', detailing how all received comments have (and have not) been addressed in the final evaluation report.

#### TEAM COMPOSITION

The evaluation team will be composed of *(1 international and 1 national evaluators)*. The consultants shall have prior experience in evaluating similar projects. Experience with GEF financed projects is an advantage. The evaluators selected should not have participated in the project preparation and/or implementation and should not have conflict of interest with project related activities.

The Team members must present the following qualifications:

- Minimum *of ten* years of relevant professional experience
- Knowledge of UNDP and GEF
- Previous experience with results-based monitoring and evaluation methodologies;
- Technical knowledge in the targeted focal area(s)

#### **EVALUATOR ETHICS**

Evaluation consultants will be held to the highest ethical standards and are required to sign a Code of Conduct (Annex E) upon acceptance of the assignment. UNDP evaluations are conducted in accordance with the principles outlined in the <u>UNEG 'Ethical</u> <u>Guidelines for Evaluations'</u>

#### PAYMENT MODALITIES AND SPECIFICATIONS

%	Milestone
15%	At contract signing
50%	Following submission and approval of the 1ST draft terminal evaluation report
35%	Following submission and approval (UNDP-CO and UNDP RTA) of the final terminal evaluation report

#### **APPLICATION PROCESS**

Applicants are requested to submit their application directly to <u>nigeriaupops@yahoo.com</u> not later than 15<sup>th</sup> January 2015 addressed to the Project Manager and Technical Director. Individual consultants are invited to submit applications together with their CV for these positions. The application should contain a current and complete C.V. in English with indication of the e-mail and phone contact. Shortlisted candidates will be requested to submit a price offer indicating the total cost of the assignment (including daily fee, per diem and travel costs).

UNDP applies a fair and transparent selection process that will take into account the competencies/skills of the applicants as well as their financial proposals. Qualified women and members of social minorities are encouraged to apply.

## ANNEX A: PROJECT LOGICAL FRAMEWORK

Result	Indicator	Baseline value	Target	Means of verification
Goal: Reducing releases and				
exposure to unintentional POPs				
originating from unsustainable				
waste operations.				
<b>Objective:</b> Enhance human	# of g TEQ/annum released	Onitsha:	20% reduction in open	Project reports; on-site
health and environmental	due to open burning of	94.9 g TEQ/a from	burning of collected	monitoring
and exposure to unintentional	municipal waste	collected waste at	100% reduction in open	Emission data reporting
POPs originating from	municipal waste.	dumpsites	burning of uncollected	Emission data reporting.
unsustainable waste operations.		7.12 g TEO/a from	waste:	
r i i i i i i i i i i i i i i i i i i i		open burning of	- 19 g TEQ/a reduction by	
		uncollected waste.	yr 4from collected waste	
			burning.	
			- 7.12 g TEQ/a reduction	
			by yr 4 from openburning	
		Vana	20% reduction in open	
		<b>Kano:</b> $394.2 \sigma$ TFO/a	burning of collected	
		open burning of	waste at dumpsites and	
		collected waste at	100% reduction in open	
		dumpsites.	burning of uncollected	
		78 g TEQ/a from	waste:	
		open burning of	- 78.8 g reduction by yr 4	
		uncollected waste.	from collected waste	
			burning. $78 \text{ g TEO/s reduction by}$	
			vr 4 from open burning of	
			uncollected waste.	
	Number of g I-TEQ/a UPOPs	TBD (g I-TEQ) at	Reduced by _20% g I-	PIR reports; calculation reco
	reduction calculated per type	project inception.	TEQ by end of project.	Field visits.
	of cropland (maize and			
	millet) area where burning is			
Component 1 Logislative	reduced.			
Strengthening and Policy				
Development.				
Outcome 1.1Stakeholders	- Updated MAW source	Preliminary data	More comprehensive	National report to Stockholm
assess and quantify baseline	inventory and UPOPs release	based upon	UPOPs estimate	convention.
data on UPOPs generation	figures from open burning of	minimal fieldwork	elaborated and adopted by	
from open burning of MAW.	MAW.	and ground	FMoE, incorporated into	Published emission data repo
	- Updated emission data on	checking.	Stockholm convention	at Federal level for states.
	projection for the country		report.	
Output 1:Demonstration of	# of people trained with	No State-level	At least 10 staff persons	Training records: Compariso
Inventory of UPOPs sources	demonstrable ability to	staff in Nigeria are	each in Anambra and	exam results from before/ af
and releases in two pilot sites.	conduct inventory.	currently trained to	Kano States and test	training.
		do this	scores above 80%.	Inventory reports.
Output 2 Marit 1	Outing any article for the	Namahait	Wabaita anith	Visit setuplar 1 't
Output 2. Monitoring and	Unline reporting format	No website or	formats for each	v isit actual website.
and operational	in online Interactive website	reporting format.	narticinating state shows	
and operational.	tracking UPOPs reporting		"at a glance" status of	
			LIPOPs for each state	

Result	Indicator	Baseline value	Target	Means of verification
	from different Nigerian states.			
	# of States submitting annual reports on UPOPs from open burning.	No reporting mechanism; not states reporting.	2 states by end of year 1. 10 states by end of year 2. 20 by end of year 3.	Actual reports of UPOPs fro open burning. Database rev
Outcome 1.2Federal waste management policy adopted and UPOPs reduction strategy endorsed.	# of state EPA endorsing draft policy on MAW management.	No MAW management policy in place.	At least 15 state EPA endorse policy by end of year 3.	Project reports Published Policy, regs.
	Legislative branch endorses MAW management policy.	No legislative branch endorsement.	Endorsement of policy by Cabinet by end of year 3.	Legislative gazette.
	# of Federal Agencies and State EPA adopting new MAW strategy.	No federal or state-level MAW strategies in place.	FMoE endorses strategy by end of year 3. At least – State EPA? Endorse Strategy by end of year 3.	Endorsement letters. Govern gazette or other reports.
Output 1. National municipal and agricultural waste management policy developed.	Draft and final versions of policy developed and reviewed in timely manner.	No policy developed or in place.	Policy draft completed by end of year 1. Stakeholder review completed by end of year 2. Submitted to legislative branch by beginning of year 3 of project.	Draft policy and final policy documents.
Output 2. Federal UPOPs reduction implementation strategy.	# of people on national committee for waste management trained in MAW UPOPs issues & frequency of committee meetings/year.	No people trained on MAW UPOPs source and release issues. Committee does not meet regularly.	Every member of committee trained by end of year 2. Meeting 2x year by end of year 2.	Strategy document itself.
Outcome 1.3Technical by- laws and guidance adopted by pilot state EPA.	By-laws for MAW management-related UPOPs drafted and adopted by each pilot site city council.	No by-laws or guidance available at state EPA level for UPOPs.	New by-law adopted by at least 2 city councils total in pilotsites by end of year 2.	Surveys/interviews
	Evidence of the use and application of by-laws and guidance notes in waste management practice.	No guidance notes/no use.	Main elements of guidance notes and by- laws incorporated into work plan materials in each pilot state.	Surveys/interviews. Work plans and outreach materials.
Output 1. Technical by-laws, state and municipal guidance covering UPOPs reductions in waste management developed.	City council by-laws drafted, reviewed and gazetted in timely manner.	No existing by- laws or regulations	By-laws drafted by end of year 1. By-laws adopted by end of year 2.	Published by-laws
	Guidance notes drafted and adopted in timely manner.	No guidance notes.	Guidance drafted by end of year 1. Guidance adopted by end of year 2.	Published guidance notes.
Outcome 1.4. Federal and state municipal waste policy setting and enforcement capacity increased.	# of judicial and state environmental protection officials in pilot sites with measurably improved knowledge and skills.	No training in UPOPs minimizing management practice or enforcement of existing environmental pollution laws.	20 officials in each pilot state have completed training and have measurably improved knowledge and skills.	Comparison of before and at training quiz results.

Dogult	Indicator	Deceline velue	Tangat	Moone of vorification
Kesült	% ofmain actors in waste creation, storage, transportation and dumping who are familiar with IWM and UPOPs reduction principles.	Approximately 5- 10%. Baseline in two pilot sites to be measured at project inception.	60-75% by end of the project.	Survey results.
Output 1. Strengthened capacity in UPOPs minimizing MAW management practice.	Training needs assessment Training workshops on enforcement, UPOPs reducing waste management practice.	No training needs assessment, workshops or materials made available to officials at state level.	Training needs assessment completed by EoY 1. Training program 50% completed by EoY 2 and 100% completed by EoY 3.	Project reports/PIR.
Component 2. Reduction of UPOPs emissions through new practices/approaches in municipal waste handling.				
Outcome 2.1. UPOPs emissions reduced through improved sorting of municipal waste.	Volume increase in waste sorted prior to depositing in dumpsite.	0 tonnes/year. Waste is largely not sorted and is dumped in site where burning is the norm.	At least 50% of waste tonnage collected in each pilot site is sorted for priority non-recyclable materials in each pilot city by end of project.	Field visit to sorting center a dumpsite; reports.
	Specific incremental steps taken to strengthen baseline IWM strategies with UPOPs- specific priorities and practices (BAT/BEP)	No UPOPs- specific elements included in baseline IWM strategies.	Onitsha and Kano strategies revised/strengthened w/respect to UPOPs release reductions and formalized sorting goals and milestones.	Revised strategy documents
	<ul><li># of dumpsites upgraded to reduce/prevent burning;</li><li># of hectares of upgraded dumpsite land where burning is impossible.</li></ul>	Zero Zero	<ul> <li>At least 10 by end of project. Upgrading of designated dumpsite in the 8 LGA of Kano and the 2 LGA of Onitsha by year 2 of project.</li> <li>At least 70 hectares by end of project.</li> </ul>	Field visits; PIR; other proje reports.
Output 1. Introduction of waste separation at selected communities.	Number of residential estate and commercial plazas and institutions that sign on the separation programme in pilot states	No formal waste separation programme	10% of residential estates, commercial and government institutions in pilot states with separation programing place by year 1 of project	Survey on site monitoring, project report
	Level of increase in community awareness.	Baseline TBD at project inception through local surveys.	Community level awareness of UPOPs in Kano and Onitsha cities increased 30% by year 2.	Survey results – baseline and target.
	Number of State EPA, Waste management authority and community "block leaders" trained in waste sorting.	No EPA, WMA or block leaders identified or trained.	At least 10 EPA and WMA staff trained in each pilot; At least 20 community leaders in each pilot LGA.	
	# of key stakeholders trained in "train the trainer programme on UPOPs reduction sorting".	Stakeholders not assessed or formally	Citywide train the trainer activities cover 25% of key stakeholders in IWM (state/local government,	Train the trainer records

Result	Indicator	Baseline value	Target	Means of verification
		recognized or	civil societies, media,	
	Citywide targets for sorting. % of city offices participating in program to sort materials not a priority for recycling.	trained. No targets, not milestones to measure success. None of the city offices or departments within pilot cities participating.	Targets in place as part of approved citywide IWM Strategy by end of project's first 18 months. At least 5 participating by EoY 2; 10 by EoY 3; and 20 by EoY 4.	Project reports, field visits/interviews.
Outcome 2.2. UPOPs emis- sions reduced through improved composting.	# of neighbourhoods with active sorting and composting programmes in the metropolitan local government areas of pilot states.	N0 neighbourhoods participating in sorting or composting.	Sorting and composting programmes in 8 local government areas (LGA) of Kano &2 LGA of Onitsha by end of year 4.	Surveys, interviews, project reports and onsite monitorin
Output 1. Establishment of composting program and collection of compostable waste at communities in 2 pilot cities.	Presence/absence of basic infrastructure for composting (collection, composting, bagging). # of restaurants participating	None present Zero.	Collection and composting infrastructure in place by end of year 1. Bagging of compost underway end of year 3. At least 10 by EoY 2; 20	Programme reports; field vis
Output 2. Develop market for composted matter in pilot areas.	in composting program. Volume of compost sold to commercial buyers.	Zero.	by EoY 3, and 40 by EoY 4. At least 2 tonnes per quarter sold by end of project.	
Outcome 2.3: Five States participating in federal IMSWM program replicate best practices.	# of states incorporating UPOPs-specific priorities into their IWM strategies.	Zero	At least 5 by end of project.	
	# of states and cities adopting by-laws and guidance notes on UPOPs reducing IWM practices.	Zero	AT least 5 by end of project.	
	# of city and State staff in non-pilot areas trained in UPOPs-reducing practices.	Zero	At least 100 by end of project.	Before and after training qui results.
	# of BAT-BEP for UPOPs reduction developed and circulated for replication.	No BAT-BEP developed in Nigeria for UPOPs.	At least 5 by end of project.	Published BAT and BEP.
Component 3. Reduction of UPOPs emissions from agricultural land clearing.				
Outcome 3.1. Open burning of stubble on farm fields is reduced through changes in agricultural practices.	# of hectares in which alternative approaches to agricultural waste (AW) burning at 3 pilot-sites in Kano state have been introduced by farmers.	Zero hectares.	By the end of the project, alternatives have been introduced in each pilot area of Kano: 20 ha at Mandobi; 20 ha at Danbatta, and 20 ha at Dogwa.	Field visits; PIR; maps.
	Number of hectares of farmland burned in a year.	Hectares of cropland stubble burned/year. Baseline TBD at project inception.	At least 10 farmers not burning cropland in preparation for farming. Hectares/year burned	Project reports; on-site monitoring. Field interviews.

	<b>T</b> 1 4		TT (	
Result	Indicator	Baseline value	Target	Means of verification
Output 1. Clarification and	UPOPs agric burning data	No refined data.	Supportive data refined	Reports; Records;
elaboration of UPOPs	refined for Kano State;		by end of year 1;	data sets.
challenges in the agricultural	Respective area of lands per		UPOPs from agric	
sector with a focus on Kano	crop determined.		burning clarified and	
state.	-		specified by end of year 2.	
Output 2. Increased level of	% of awareness among	Awareness level	Increase of at least 50%	Before and after surveys.
farmer and agriculture officials	clearly defined target groups	TBD at project	by end of project.	
awareness of the impact of	of farmers and agriculture	inception. Few		
burning farm fields, both from	officials.	farmers are aware		
an agronomic and UPOPs		of UPOPs releases		
perspective.		through burning of		
		agricultural land.		
	# of training workshops	Innovative	At least 8 workshops held	Training materials
	organized for extension	approaches to	by project end for	Workshop reports
	officers and farmers.	burning not	extension	Project reports
	# extension toolkit and #	known.	officers/farmers.	
	training manuals developed		1 Toolkit,2 training	
	for extension officers and		modules by end year 1	
	farmers		and in full use by middle	
			year 2.	
Output 3. Alternative	# of additional farms	Zero	Alternatives replicated for	Field visits, PIR,
approaches to stubble burning	replicating alternative		at least 20 additional	project reports.
at pilot sites in Kano introduced	approaches to burning.		farms across Kano.	_
and replicated.				

#### ANNEX B: LIST OF DOCUMENTS TO BE REVIEWED BY THE EVALUATORS

The project document, project reports – including Annual APR/PIR, project budget revisions, midterm review report, progress reports, project files, and any other document requested for by the evaluators.
# ANNEX C: EVALUATION QUESTIONS

This is a generic list, to be further detailed with more specific questions by CO and UNDP GEF Technical Adviser based on the particulars of the project.

Evaluative Criteria Questions	Indicators	Sources	Methodology
Relevance: How does the project relate to the main objectives of the GEF focal	l area, and to the environment and developme	nt priorities at the local, regional	and national levels?
•	•	•	•
•	•	•	•
•	•	•	•
Effectiveness: To what extent have the expected outcomes and objectives of th	e project been achieved?		
•	•	•	•
•	•	•	•
•		•	•
Efficiency: Was the project implemented efficiently, in-line with international and national norms and standards?			
•	•	•	•
•	•	•	•
•	•	•	•
Sustainability: To what extent are there financial, institutional, social-econom	nic, and/or environmental risks to sustaining le	ong-term project results?	
•	•	•	•
•	•	•	•
Impact: Are there indications that the project has contributed to, or enab	oled progress toward, reduced environment	al stress and/or improved ecolo	gical status?
•	•	•	•
•	•	•	•

# ANNEX D: RATING SCALES

Ratings for Outcomes, Effectiveness, Efficiency, M&E, I&E Execution	Sustainability ratings:	Relevance ratings
6: Highly Satisfactory (HS): no shortcomings	4. Likely (L): negligible risks to sustainability	2. Relevant (R)
<ul><li>5: Satisfactory (S): minor shortcomings</li><li>4: Moderately Satisfactory (MS)</li></ul>	3. Moderately Likely (ML):moderate risks	1 Not relevant (NR)
3. Moderately Unsatisfactory (MU):	2. Moderately Unlikely (MU): significant	
significant shortcomings	risks	Impact Ratings:
2. Unsatisfactory (U): major problems	1. Unlikely (U): severe risks	3. Significant
1. Highly Unsatisfactory (HU): severe		(S)
problems		2. Minimal (M)
		1. Negligible
		(N)
Additional ratings where relevant:		
Not Applicable (N/A)		
Unable to Assess (U/A		

#### ANNEX E: EVALUATION CONSULTANT CODE OF CONDUCT AND AGREEMENT FORM

#### **Evaluators:**

- 1. Must present information that is complete and fair in its assessment of strengths and weaknesses so that decisions or actions taken are well founded.
- 2. Must disclose the full set of evaluation findings along with information on their limitations and have this accessible to all affected by the evaluation with expressed legal rights to receive results.
- 3. Should protect the anonymity and confidentiality of individual informants. They should provide maximum notice, minimize demands on time, and respect people's right not to engage. Evaluators must respect people's right to provide information in confidence, and must ensure that sensitive information cannot be traced to its source. Evaluators are not expected to evaluate individuals, and must balance an evaluation of management functions with this general principle.
- 4. Sometimes uncover evidence of wrongdoing while conducting evaluations. Such cases must be reported discreetly to the appropriate investigative body. Evaluators should consult with other relevant oversight entities when there is any doubt about if and how issues should be reported.
- 5. Should be sensitive to beliefs, manners and customs and act with integrity and honesty in their relations with all stakeholders. In line with the UN Universal Declaration of Human Rights, evaluators must be sensitive to and address issues of discrimination and gender equality. They should avoid offending the dignity and self-respect of those persons with whom they come in contact in the course of the evaluation. Knowing that evaluation might negatively affect the interests of some stakeholders, evaluators should conduct the evaluation and communicate its purpose and results in a way that clearly respects the stakeholders' dignity and self-worth.
- 6. Are responsible for their performance and their product(s). They are responsible for the clear, accurate and fair written and/or oral presentation of study imitations, findings and recommendations.
- 7. Should reflect sound accounting procedures and be prudent in using the resources of the evaluation.

<b>Evaluation Consultant Agreement Form</b> <sup>4</sup>	1
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Agreement to abide by the Code of Conduct for Evaluation in the UN System

Name of Consultant: \_\_\_\_\_

Name of Consultancy Organization (where relevant):

I confirm that I have received and understood and will abide by the United Nations Code of Conduct for Evaluation.

Signed at *place* on *date* 

Signature: \_\_\_\_\_

<sup>&</sup>lt;sup>4</sup>www.unevaluation.org/unegcodeofconduct

# Annex F: Evaluation Report Outline<sup>5</sup>

i.	Opening page:
	Title of UNDP supported GEF financed project
	• UNDP and GEF project ID#s.
	• Evaluation time frame and date of evaluation report
	Region and countries included in the project
	GEF Operational Program/Strategic Program
	Implementing Partner and other project partners
	• Evaluation team members
	Acknowledgements
ii.	Executive Summary
	Project Summary Table
	Project Description (brief)
	Evaluation Rating Table
	Summary of conclusions, recommendations and lessons
iii.	Acronyms and Abbreviations
	(See: UNDP Editorial Manual <sup>6</sup> )
1.	Introduction
	• Purpose of the evaluation
	Scope & Methodology
	• Structure of the evaluation report
2.	Project description and development context
	• Project start and duration
	• Problems that the project sought to address
	<ul> <li>Immediate and development objectives of the project</li> </ul>
	Baseline Indicators established
	Main stakeholders
	• Expected Results
3.	Findings
	(In addition to a descriptive assessment, all criteria marked with $(*)$ must be rated <sup>7</sup> )
3.1	Project Design / Formulation
	• Analysis of LFA/Results Framework (Project logic /strategy; Indicators)
	Assumptions and Risks
	• Lessons from other relevant projects (e.g., same focal area) incorporated into project design
	Planned stakeholder participation
	Replication approach
	UNDP comparative advantage
	<ul> <li>Linkages between project and other interventions within the sector</li> </ul>
	Management arrangements
3.2	Project Implementation
	<ul> <li>Adaptive management (changes to the project design and project outputs during</li> </ul>
	implementation)
	• Partnership arrangements (with relevant stakeholders involved in the country/region)
	• Feedback from M&E activities used for adaptive management
	• Project Finance:

<sup>&</sup>lt;sup>5</sup>The Report length should not exceed 40 pages in total (not including annexes).

<sup>&</sup>lt;sup>6</sup> UNDP Style Manual, Office of Communications, Partnerships Bureau, updated November 2008

<sup>&</sup>lt;sup>7</sup> Using a six-point rating scale: 6: Highly Satisfactory, 5: Satisfactory, 4: Marginally Satisfactory, 3: Marginally Unsatisfactory, 2: Unsatisfactory and 1: Highly Unsatisfactory, see section 3.5, page 37 for ratings explanations.

- Monitoring and evaluation: design at entry and implementation (\*)
- UNDP and Implementing Partner implementation / execution (\*) coordination, and operational issues
- **3.3** Project Results
  - Overall results (attainment of objectives) (\*)
  - Relevance(\*)
  - Effectiveness & Efficiency (\*)
  - Country ownership
  - Mainstreaming
  - Sustainability (\*)
  - Impact
  - Conclusions, Recommendations & Lessons
    - Corrective actions for the design, implementation, monitoring and evaluation of the project
    - Actions to follow up or reinforce initial benefits from the project
    - Proposals for future directions underlining main objectives
    - Best and worst practices in addressing issues relating to relevance, performance and success

#### 5. Annexes

4.

- ToR
- Itinerary
- List of persons interviewed
- Summary of field visits
- List of documents reviewed
- Evaluation Question Matrix
- Questionnaire used and summary of results
- Evaluation Consultant Agreement Form

# **Annex G: Evaluation Report Clearance Form**

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To be completed by CO and UNDP GEF Technical Adviser based in the region and included in the final document

Evaluation Report Reviewed and Cleared by	
UNDP Country Office	
Name:	
Signature:	Date:
UNDP GEF RTA	
Name:	
Signature:	Date:
Name: Signature: Signature:	Date:

State	Office/Project Site Visited	Stakeholders Consulted
KANO	Kano State Refuse	(i) The General Manager;
	Management and Sanitation Board	(ii) Director of Administration and General Services
	Ministry of Environment	Member of the State's Project Steering Committee
	State Livestock Institute, Bagauda (upgraded dump site)	Director and Focus group
	Audu Bako College of Agriculture, Dambata ( <i>upgraded</i> <i>dump site</i> )	Rector and Focus group
	Agriculture Development Programme (ADP) Dambatta and Doguwa field offices	Focused Group meeting with, Agricultural Development Programme (ADP) field officers in Dambatta and Doguwa; Secretary, Fulani Cattle Rearers group; the Chief of Ta Gwaye Town, Doguwa, LGA; the project agricultural consultant in Kano State;
	Kabuga-Jambolo community	Focus group at the composting and plastics recycling site
	Private sector	Businessman, Abubakar Hamsa
	A manufactor Ct. (	Concert Manager Dhil Chinest F
ANAMBRA	Anambra State Waste Management Authority (ASWAMA)	General Manager, Phil Chiwuba Esq.
	Ministry of Environment	Director (Pollution Control)/Project Steering Committee member from Anambra State.
	Ezinifite-Okpuno community	Focus group at the composting and plastics recycling site.

## B. : Evaluation Team Itinerary and Stakeholders Consulted

## C: List of Persons Interviewed or Given Questionnaires to fill.

- *i)* The General Manager, Kano State Refuse Management and Sanitation Board (REMASAB), Kano;
- *ii)* The Director, Adm. & General Services, Refuse Management and Sanitation Board (REMASAB), Kano;
- *iii)* Prof Musa Yakasai, Rector, Audu Bako College of Agriculture, Dambata, Kano

- *iv)* Mr Oladipo Osibo, Project Backstopping Officer, UNDP CO, Abuja
- v) Haruna Muasu, Secretary, Fulani Cattle Rearers, Doguwa, Kano State.
- vi) Alh Zakari Iliyasu, the Town Head, Ta Gwaye Town, Doguwa, LGA, Kano State.
- vii) Barshi Garuba, Makuda, L.G.A, Kano State
- viii) Bashir H. Abubakar, NARDA Extension Agent.
- *ix)* Abbas Mustapha, ADP Staff, Kano
- x) Lawani Ibrahim, Chief Extension Officer/Supervisor, Bishi L.G.A., Kano State
- *xi)* Dr. Garba Saleh Ahmad, Director, Ministry of Environment, Kano State/PSC Member, representing Kano State.
- xii) Jazuli Mohammed, the Director, Kano State Livestock Institute, Bagauda, Kano
- *xiii)* Abubakar Hamsa, Private Business Man.
- *xiv*) Ado Hassan, spoke person for Shredding Machines beneficiaries
- *xv)* Philip Chinwuba Esq., The Managing Director, Anambra State Waste management Authority (ASWAMA)
- *xvi)* Ubaka Christiana, Director, Ministry of Environment, Anambra State/ PSC Member, representing Anambra State.

#### D. Summary of Field Visits Observations

- i. Many aspects of project outcomes are visible in both states.
- ii. Lives of stakeholders at the local level have been impacted.
- iii. The area for the composting centre in Kano is small, will need a bigger space to accommodate expansion.
- iv. The composting centre in Anambra State is quite spacious
- v. The staff of the project implementation units in both Kano and Anambra are well motivated
- vi. Consultants providing training on alternatives to residue burning in kano are quite knowledgeable, and enthusiastic about what they teach the farmers.
- vii. Farmers are quite knowledgeable about alternatives to farm waste burning.
- viii. Stakeholders in the states hold the PMU in high regards

## E. Lists of Documents Reviewed

- Guideline notes for the reduction of open burning of open municipal and agricultural waste (NAW), Nov, 2013
- Nigeria national reduction strategy for the prevention of open burning of municipal and agricultural waste, Nigeria July 2013
- Project Implementation Review(PIR), 2014

- Communiqué on the training workshop on alternative to approaches to open burning of agricultural residual waste held at Kano University of science and technology, wudil, 2-5 October 2012.
- Nigeria /UNDP/GEF : Project Document less burnt for a cleaner earth , minimization of dioxin emission from open burning sources in Nigeria,2010
- Nigeria /UNDP/GEF :Peer to peer training on alternative approaches to open burning of agricultural waste
- Final Draft: national policy on municipal and agricultural waste (MAN) management Nigeria, August 2012.
- Mid-term Project Assessment : less burnt for a cleaner earth project, August 2013
- Project Identification Form (PIF), September 2008
- Report on inventory of sources and quantification of unintentional persistence organic pollutants (WPOPs) emission from open burning of Agricultural waste in Kano, Nigeria April 2012

### F. Evaluation Questions

Relevance: How does the project relate to the main objectives of the GEF focal area, and to the environment and development priorities at the local, regional and national levels?

Effectiveness: To what extent have the expected outcomes and objectives of the project been achieved?

Efficiency: Was the project implemented efficiently, in-line with international and national norms and standards?

Sustainability: To what extent are there financial, institutional, social-economic, and/or environmental risks to sustaining long-term project results?

Impact: are there indications that the project has contributed to, or enabled progress toward, reduced environmental stress and /or improved ecological status?

## G: Questionnaires Used

# I. TERMINAL REPORT: NIGERIA LESS BURNT PROJECT QUESTIONNAIRE FOR STATE GOVERNMENT PARTNERS

Name of Partner:	
Address:	
Person Filling Questionnaire:	-TEL:

## A: Project Design:

i)	Is the Project Design OK? Yes No If No what's missing?
ii)	Is the Project relevant to the developmental priorities of the State? Yes No . If No How can it be made to be relevant ?
iii) iv)	Is the Project addressing real developmental problems? Yes No If No what should be addressed? Are all relevant stakeholders involved? Yes No If No who's missing?
v)	Are all the beneficiaries justified? Yes No If No which are the unjustified ones?

### **B: Project Implementation/Outcome**:

i)	Is the Implementation arrangement OK? Yes No If No what's the
	problem?

## **C:** Institutional Strengthening/ Capacity Building:

 i) Has the Project achieved anything in the area of Institutional Strengthening? Yes------No-----. If Yes , What ? ----- ii) Has the Project helped in Capacity Building of the State? Yes------ No-------If Yes, in which respect? ------

#### **D:** Project Management/Impacts:

-.

What in your opinion are the Project Impacts
Would you regard the project as generally successful? Yes No No If Yes, What, in your opinion made this possible?
If No, What makes you to think so?
What, in your opinion, are the direct and indirect benefits of the Projects?

# **E: Project Replicability/Lessons Learned**:

i)	In your opinion, is the project replicable? Yes No
ii)	Is there any plan by the state to replicate the Project? Yes No
,	If Yes, what is the proof? E.g. allocation
	If No, why?
iii)	What aspect of the project would you think should be done differently if the projected
,	were to be replicate
iv)	Are there any lessons Learned?
1()	The diele diff lessons Learned.
	II. TERMINAL REPORT: NIGERIA LESS BURNT PROJECT
	OUESTIONNAIE FOR FARMERS
Name of F	<sup>7</sup> armer:
Address: -	
TEL:	
i)	Were the Project objectives thoroughly explained to you at the commencement of the
	Project? Yes No
ii)	What were you promised at the beginning of the Project ?
iii)	Did you get all that was promised? Yes No If No what's missing?
,	
iv)	What were your expectations at the beginning of the Project?
1v)	what were your expectations at the beginning of the Project?
、 、	
V)	Were all your expectations met? Yes No If No what's missing?
vi)	Which is your choice of Agric. Waste Conversion Process?

	CRU Process	
	Shredding Process	
V11)	Animal Faad	
	Animal Feed	
	Compost	
viii)	How has the Project impacted your livelihood?	
ix)	How has the Project been managed? Good Bad	
x)	Are there any barriers likely to prevent you from continuing the process after project	
	closure?	
	III. TERMINAL REPORT: NIGERIA LESS BURNT PROJECT QUESTIONNAIE FOR MUNICIPAL WASTE SORTERS	
Name of S	Sorter:	
Address: -		
TEL:		
i)	Were the Project objectives thoroughly explained to you at the commencement of the Project 2 Yes No	
ii)	What were you promised at the beginning of the Project ?	
iii)	Did you get all that was promised? Yes No If No what's missing?	
iv)	What were your expectations at the beginning of the Project?	
v)	Were all your expectations met? Yes No If No what's missing?	
vi)	How has the Project impacted your livelihood?	
vii)	How has the Project been managed? Good Bad	
viii)	Are there any barriers likely to prevent you from continuing the process after project closure?	
	IV. TERMINAL REPORT: NIGERIA LESS BURNT PROJECT QUESTIONNAIRE FOR UNDP BACKSTOPPING OFFICER	

Person Filling Questionnaire: ----- TEL: -----

# A: Project Design:

i)	Is the Project Design OK? Yes No If No what's missing?					
ii)	- In your opinion, are all relevant stakeholders involved? Yes No If No who's missing?					
iii)	Are all the beneficiaries justified? Yes No If No which are the unjustified ones?					
B: Proj	ect Implementation:					
i.	Do you think the Implementation arrangement is OK? Yes No If No what's the problem?					
ii.	How often did UNDP official(s) visited the project sites?					
iii.	Were reports made and submitted as at when due by the PMU?					
iv.	Yes No It was reported that UNDP never came to any of the scheduled steering committee meeting.					
C . I	w nat happened ?					
i.	Has the Project achieved anything in the area of Institutional Strengthening? Yes No If Yes, What?					
<b>D: Proj</b> i.	ect Management/Impacts: In your opinion, has the Project been well managed ? Yes No If Yes, What was the key factor?					
ii.	Was there proper coordination and dissemination of information among all stakeholders? Yes No					
iii.	As a Partner, were you able to perform your expected role unhampered? Yes No If No, what was the problem?					
iv.	In your opinion, how effective has the project been? Effective Not Effective					
v.	What in your opinion are the Project Impacts					

\_\_\_\_\_

## E: Financial :

i. Were all financial expenditures made under the project in line with GEF/UNDP requirements and procedures

Yes
No
If No. What went wrong?

### F: Technical Guidance

i. Would you think your organisation (UNDP) provided technical guidance to the project as needed?

Yes -----No-----If No, what happened? ------

## H. Evaluation Consultant Agreement Form

#### **Evaluators:**

1. Must present information that is complete and fair in its assessment of strengths and weaknesses so that decisions or actions taken are well founded.

2. Must disclose the full set of evaluation findings along with information on their limitations and have this accessible to all affected by the evaluation with expressed legal rights to receive results.

3. Should protect the anonymity and confidentiality of individual informants. They should provide maximum notice, minimize demands on time, and respect people's right not to engage. Evaluators must respect people's right to provide information in confidence, and must ensure that sensitive information cannot be traced to its source. Evaluators are not expected to evaluate individuals, and must balance an evaluation of management functions with this general principle.4. Sometimes uncover evidence of wrongdoing while conducting evaluations. Such cases must be reported discreetly to the appropriate investigative body. Evaluators should consult with other relevant oversight entities when there is any doubt about if and how issues should be reported.

5. Should be sensitive to beliefs, manners and customs and act with integrity and honesty in their relations with all stakeholders. In line with the UN Universal Declaration of Human Rights, evaluators must be sensitive to and address issues of discrimination and gender equality. They should avoid offending the dignity and self-respect of those persons with whom they come in contact in the course of the evaluation. Knowing that evaluation might negatively affect the interests of some stakeholders, evaluators should conduct the evaluation and communicate its purpose and results in a way that clearly respects the stakeholders' dignity and self-worth. 6. Are responsible for their performance and their product(s). They are responsible for the clear, accurate and fair written and/or oral presentation of study imitations, findings and recommendations. 7. Should reflect sound accounting procedures and be prudent in using the resources of the evaluation.

## Agreement to abide by the Code of Conduct for Evaluation in the UN System

Name of Consultant: \_\_\_\_\_

Name of Consultancy Organization (where relevant):

I confirm that I have received and understood and will abide by the United Nations Code of **Conduct for Evaluation.** 

Signed at *place* on *date* 

### Signature: \_\_\_\_

#### I. Evaluation Rating Scales

Ratings for Effectiveness, Efficiency, Overall	Sustainability ratings:	Relevance ratings			
<ul> <li>Project Outcome Rating, M&amp;E, IA &amp; EA</li> <li>Execution, Replicability</li> <li>6. Highly Satisfactory (HS): no</li> <li>shortcomings</li> <li>5. Satisfactory (S): minor shortcomings</li> <li>4. Moderately Satisfactory (MS):</li> </ul>	<ol> <li>4. Likely (L): negligible risks to sustainability</li> <li>3. Moderately Likely (ML): moderate risks</li> <li>2. Moderately Unlikely (MU): significant risks</li> </ol>	2. Relevant (R) 1. Not relevant (NR) <i>Impact ratings</i>			
<ul> <li>moderate shortcomings</li> <li>3. Moderately Unsatisfactory (MU):</li> <li>significant shortcomings</li> <li>2. Unsatisfactory (U): major shortcomings</li> <li>1. Highly Unsatisfactory (HU): severe shortcomings</li> </ul>	1. Unlikely (U): severe risks	3. Significant (S) 2. Minimal (M) 1. Negligible (N)			
Additional ratings where relevant: Not Applicable (N/A) Unable to Assess (U/A)					

Criteria	Numer ical Rating	Rating	Rating Implication
Ratings for	6	Highly satisfactory	The project had no shortcomings in terms of the respective
Effectiveness,		(HS)	criterion against which it is being assessed.
Efficiency,	5	Satisfactory (S).	The project had minor shortcomings in terms of the respective
<b>Overall Project</b>			criterion against which it is being assessed.
Outcome	4	(MS)	The project had moderate shortcomings in terms of the respective criterion against which it is being assessed
Rating,	3	Moderately	The project had significant shortcomings in terms of the
M & E,	5	unsatisfactory (MU)	respective criterion against which it is being assessed.
IA & EA	2	Unsatisfactory (MU)	The project had major shortcomings in terms of the respective
Execution,		<b>,</b> , , ,	criterion against which it is being assessed.
Replicability	1	Highly unsatisfactory	The project had severe shortcomings in terms of the respective
		(HU).	criterion against which it is being assessed.
Sustainability	4	Likely (L)	There are negligible risks to sustainability of the project's outcomes.
	3	Moderately likely (ML)	There are moderate risks to sustainability of the project's outcomes.
	2	Moderately unlikely (MU)	There are significant risks to sustainability of the project's outcomes.
	1	Unlikely (U)	There are severe risks to sustainability of the project's outcomes.
Relevance	2	Relevant (R)	Project relates to the main objectives of GEF focal area, and local, national and regional environment and development priorities.
	1	Not relevant (NR)	Project does not relate to the main objectives of GEF focal area, and local, national and regional environment and development priorities.
Impact	3	Significant (S)	Project has significantly contributed to or enabled progress toward reduced environmental stress and/or improved ecological status.
	2	Minimal (M)	Project has minimally contributed to or enabled progress toward reduced environmental stress and/or improved ecological status.
	1	Negligible (N)	Project's contribution to progress toward reduced environmental stress and/or improvement of ecological status is negligible.
Additional ratings when Not Applicable (N/A) Unable to Assess (U/A)	e relevant:		

# J. Evaluation Rating Scales Interpretations

# K. Short Biographies of Evaluators

## **National Evaluators**

**Dr. David B. Omotosho** has a Masters degree in Environmental Planning from Nottingham University, U.K. and a doctoral degree from University of Pittsburgh, USA in Policy Analysis with special application in the built environment area. He taught for 12years at the Kwara State Polytechnic, Ilorin, Nigeria. He also worked, from 1992 – 2003, at the Federal Environmental Protection Agency (FEPA) and the Federal Ministry of Environment, Nigeria. He was seconded, from 2004- 2010, to the United Nations Development Programme (UNDP), Nigeria to implement Nigeria's National CFC Phase-Out Plan under a DEX modality arrangement. Since retiring in 2010, he has been working as the Principal Partner of John Davison Associates (JDA) providing professional services in the areas of Physical Planning and Environment, and had undertaken studies and projects, either in private

capacity or on the platform of JDA, for GEF/UNDP; CCAC; Nigerian Government and many private companies in Nigeria.

**Prof. Emmanuel O. Oladipo** has a doctorate degree in Climatology, with a strong background in Physical and Quantitative Methods in Geography. He has a cumulative employment experience of over 35 years after his first degree, and rose to the rank of a full Professor in 1992 in the Department of Geography, Ahmadu Bello University, Zaria before joining the United Nations Development Programme (UNDP), Nigeria where he worked for 12 years in the area of environmental sustainability. Since leaving the UNDP in 2006, Prof. Oladipo has been working in the area of integrated ecosystems management and climate change. He has participated in mid-term and terminal reviews of UNDP/GEF Projects in Botswana and Ghana. He is currently with the Department of Geography, University of Lagos, Nigeria.

# **International Evaluator**

**Mr. Richard Abrokwa-Ampadu** has M.Sc. degrees in Chemical Engineering and Science Education respectively with over 40 years working experience. Starting with teaching at a Specialist Teachers College in 1973 he joined Ghana's Environmental Protection Council (EPC) (now Agency) in 1976 as a Research Officer in charge of Industrial Pollution, Industrial and Toxic Chemicals Management and Environmental Education. After 16 years at EPC rising to the position of Director of Programmes, he joined the newly established Secretariat of the Multilateral Fund for the Implementation of the Montreal Protocol in 1992 and managed the phase-out of ozone depleting substances in the foam manufacturing sector as well as institutional strengthening of Article 5 countries. He retired from the United Nations as Senior Project Management Officer in 2004 and has since been a consultant for various UN agencies in programme and project development, implementation, evaluation and monitoring. He recently did for UNDP the Final Evaluation of the GEF/UNDP/UNEP/UNIDO/WB Medium-Sized Project: Preparing for HCFC Phase-out in CEITs: Needs, Benefits and Potential Synergies with other MEAs.

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