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## **Independent terminal evaluation**

### **BURKINA FASO**

#### Promoting energy efficiency technologies in beer brewery in Burkina Faso

UNIDO project No. GF/BKF/12/001- SAP 100046  
GEF ID: 4285



UNITED NATIONS  
INDUSTRIAL DEVELOPMENT ORGANIZATION

UNIDO OFFICE FOR INDEPENDENT EVALUATION

## Independent terminal evaluation

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This document has not been formally edited.

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## Acronyms and abbreviations

AGR	Agri-business
BIT	Business, Investment and Technology Services
CBS	Competitiveness Benchmarking System
CDM	Clean Development Mechanism
CE	Conformity European
CFC	Chlorofluorocarbons
COP	Codes of Practices
CP	Country Programme
CRI	Citrus Research Institute
CSR	Corporate Social Responsibility
CTA	Chief Technical Advisor
DaO	Delivering as One
DPR	Detailed project reports
EC	European Commission
ECC	Energy and Climate Change
EMB	Environmental Management Branch
EU	European Union
FCS	Fishermen Cooperative Society
FFS	Farmer Field School
FVO	Food Veterinary Office
FAO	Food and Agriculture Organization
FO	Field Office
GoBF	Government of Burkina Faso
GDP	Gross Domestic Product
GEF	Global Environment Facility
GF	Global Forum
MDGs	Millennium Development Goals
MTR	Mid-term review
ODG/EVA	UNIDO Office for Independent Evaluation
PAD	Project allotment document
PMO	Programme Management Office
SME	Small and medium enterprises
TC	Technical Cooperation
TCB	Trade capacity building
ToR	Terms of reference
UNDAF	United Nations Development Assistance Framework
UNIDO	United Nations Industrial Development Organization
US\$	United States dollar
UR	UNIDO Representative
WB	World Bank
WTO	World Trade Organization



## Glossary of evaluation terms

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

# Executive summary

## Introduction

The purpose of the independent terminal evaluation<sup>1</sup> (ITE) is to enable the Government of Burkina Faso (GoBF), the GEF (the donor), counterparts, UNIDO and other stakeholders on to assess the achievement of project activities/outputs, outcomes/impacts based on project performance indicators, which should lead to a greater impact and sustainability of the project. On the other hand this ITE - by assessing project relevance, effectiveness, efficiency and sustainability - should draw lessons learned during its implementation thereby proposing recommendations with a view to on-going and future activities and particularly on a possible second phase of the project.

The key question for this evaluation is to understand if the project has made a significant contribution to:

- Promotion of fuel efficient cook stoves in the beer brewery sector in Burkina Faso;
- Protection of the environment through the reduction of firewood consumption;
- Reduction of green-house gas emissions.

The evaluation was conducted by the independent evaluation team: Mr. Cristóbal Vignal, international evaluation consultant and team leader and Mr. Issaka Herman Traoré, national consultant

## Key findings and conclusions

The evaluation team (ET) has collected information from documents and interviews in the field to assess the overall performance of the project with regards to activities, outputs, and outcomes leading to impacts and, the sustainability of project. These data were assessed against the logical framework of the project. The main findings of the evaluation are presented under each criteria of the evaluation.

## Relevance

The **relevance** of the project is assessed as Highly Satisfactory, both according to the ET as well as GEF, UNIDO, the Government of Burkina Faso and all other stakeholders. Evidence based data have shown that the project is considered to have been timely in the sense that it matched current needs and priorities.

The project is aligned with the country's National Sustainable Development Policy as well as with the Laws governing forestry and environmental protection namely the *code de l'environnement* and the *code forestier*. The project is considered to be consistent with the programme strategies of the GEF, and in particular the GEF Strategic Programme # 2 (SP#2) - Promoting energy efficiency in the Industrial Sector. In addition the project is in line with regional harmonization efforts of the GEF under its Strategic Programme for West Africa (SPWA).

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<sup>1</sup> Terms of reference for the ITE of the project on Promoting Energy Efficient Cook Stoves in the Beer Brewery Sector (14.04.2014 Final TOR TE GF/BKF/12/001)

Finally the project is in line with UNIDO's mandate and the ECOWAS White paper of 2011.

## **Efficiency**

The **efficiency** of the project is **moderately unsatisfactory** with a limited number of project outputs delivered on target. The planned/actual ratio of expenditures (76%) is low, at this stage in the life of the project; despite the fact that most Outputs and Activities that have been completed were implemented in a cost-effective manner.

The ET was not informed of any delays from UNIDO, whose contributions were described as having been made at the expected level and in a timely manner.

The ET was informed of shortcomings and delays as regards provision of inputs from Government counterparts, in particular as the late registration of the Project at the national level by the Ministry of Economy and Finance did not allow funding from the Government to be disbursed upon project signature. This had effects on implementation of activities on the ground.

## **Effectiveness**

The **effectiveness** of the project was assessed against the outcomes, as stated in the project document, and effectiveness has been determined to be **moderately satisfactory**.

On **outcome 1**: Beer brewers have adopted improved cook stoves (ICS), which occurred in part as a result of the training of local masons (48) in the construction of ICS. This adoption of ICS has decreased the quantity of firewood used in the dolo brewing thereby enhancing the health of dolo brewers. This is due to the decrease in the amount of smoke generated by the ICS from wood burning, as well as greatly reduced exposure to heat.

The co-financing scheme with African Export Import Bank (Afrexim) did not take place to the extent that this product became uncompetitive. Nevertheless a simplified procedure to provide access to micro credit for the brewers was diligently put in place.

Two hundred and fifty (250) out of five hundred (500) cook stoves were installed in the different four (4) clusters villages from the beginning of the project to the end of December 2014.

On **outcome 2**: Two Cluster Development Agents (CDAs) were hired and appointed for each cluster to oversee project activities in this cluster. Saaba & Pabre and Ziniare & Zorgho are the two clusters identified by the project management team in consultation with other stakeholders like SNV and GIZ. The cluster and business linkages (CBL) was promoted by UNIDO in all the four clusters to foster the establishment and progressive strengthening of the clusters the project had initially identified. As a result of these activities, twenty-six (26) associations of dolo brewers were established and discussions were underway at the time of the evaluation for the establishment of the National Federation of Dolo Brewers.

Finally on **outcome 3**: twenty-two (22) master project developers were trained on design of a carbon market project (Gold Standard Project - GS). Trainees

included government representatives, development partners, local NGOs and representatives of the private sector. Unfortunately although Developers had been trained, they did not consider that they were capable of writing a project unassisted, let alone register it.

### **Sustainability and impact**

The medium term **sustainability** of the project has been assessed as **likely**. The reason of the likelihood of that sustainability being the fact that the installed ICS' have generated a high-level of interest which is manifested directly to the owners by potential stakeholders (coming sometimes from distant villages). In addition, the fact that the trained mason are from the communities, combined with the relatively low price of ICS construction are considered factors that play an important role for the projects sustainability.

Other factors such as health improvement of dolo brewers, savings generating revenues that are used in school fees, the perception of contributing to environment protection, and finally the tontines scheme are among the other facts that contributed to the highly likely sustainability rating of this project.

### **Crosscutting issues**

- One of the counterpart organizations - the *Institut de Recherche en Sciences Appliquées et Technologies (IRSAT)* - trained project masons that were already either trained by SNV or GIZ. In the future to avoid such a double funding for the same people there is a need for IRSAT to develop a database of masons trained.
- The improved cook stoves project in Burkina Faso although initially focused on women dolo (local beer) brewers. It appeared finally on the ground that in the chain of dolo brewing and selling there are also the women dolo re-sellers. This category of women is not considered in the process of program implementation in terms of direct support. In the future for project replication it would be worth including this particular group of women in the value chain of the dolo brewing sector, since most of them want to move ahead from dolo selling to dolo brewing. Supporting them to move one or two ladders ahead will be a significant step in poverty alleviation.
- The training of the 22 master developers has shown the enthusiasm of stakeholders in Gold Standard projects. What brings the issue of furthering UNIDO's approach and support on Gold Standard Project beyond trainings only. Thus in future projects or in case of replicability one should think about integrating the full process of Gold Standard projects registration as a project component.

### **Key recommendations**

- UNIDO should consider urgently implementing mechanisms to guarantee effective follow up of all project indicators.
- UNIDO should consider formalizing a process to update logframes as implementation of projects progresses, but needs to be adapted to changing realities and/or encounters obstacles.

- UNIDO should consider –in the context of industrialization- developing linkages to the efforts currently underway (private) to bottle dolo for commercial purposes.
- UNIDO should consider developing a mechanism to follow up with project registration in countries where this is required, in order to minimize delays when they are encountered.

### **Lessons learned**

- Co-financing without a firm and clear commitment from the other stakeholder can seriously undermine the implementation of a programme.
- Programme registry at the Ministry level in the recipient country should be considered as a priority. In doing so UNIDO ensures that the national counterpart plays effectively the role it is supposed to play.
- An high staff turnover coupled with an unclear sound M&E system does impact negatively in program implementation and day to day monitoring

# 1. Introduction and background

## 1.1 Information on the evaluation

The purpose of the independent terminal evaluation<sup>2</sup> is to enable the Government of Burkina Faso (GoBF), the GEF (the donor), counterparts, UNIDO and other stakeholders to:

- (a) Verify prospects for development impact and sustainability, providing an analysis of the attainment of the main objective and specific objectives of the project with a specific reference to delivery and completion of project outputs/activities, and outcomes/impacts based on indicators;
- (b) Enhance project relevance, effectiveness, efficiency and sustainability by proposing a set of recommendations with a view to on-going and future activities and particularly on a possible second phase of the project;
- (c) Draw lessons of wider applicability for the replication of the experience gained from this project at a national and regional level.

The key question for this evaluation is to understand if the project has made a significant contribution to:

- Promotion of fuel efficient cook stoves in the beer brewery sector in Burkina Faso;
- Protection of the environment through the reduction of firewood consumption.
- Reduction of greenhouse-gas emission;

In particular the Evaluation Team (ET) will seek to obtain and verify information demonstrating the existence of evidence as regards:

- Adequacy of project design, relevance, effectiveness, efficiency, sustainability and of the monitoring and evaluation mechanisms in place;
- Reduction of the quantity of wood used by dolo brewers.

## 1.2 Evaluation objectives, scope and methodology

### 1.2.1 Information sources and availability of information

Through the documentary information and the information collected in the field, the evaluators consider that there was sufficient evidence to allow them to establish a baseline for the project.

Sources of information were sufficient to verify and document the progress and, constraints encountered during the assessment; data and information derived from interviews are qualitatively satisfactory and, this was verified through comparison of figures from different sources and through cross-checked interviews with relevant actors in an independent way, showing that respondents' views and contributions were in full agreement.

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<sup>2</sup> Terms of reference for the ITE of the project on Promoting Energy Efficient Cook Stoves in the Beer Brewery Sector (14.04.2014 Final TOR TE GF/BKF/12/001)

In addition, information obtained allowed the ET to verify that progress to date corresponds to the activities, outputs and eventual outcomes, as set out in the logical framework of the project. This also allowed the ET to verify that progress is measured by indicators, as defined in the logical framework.

#### 1.2.2 Methodological remarks and validity of the findings

The methodology for the assessment was based on:

- A review of project documents;
- Interviews with the Project Coordinator and local consultant;
- Interviews with Project stakeholders
- Field visits in Saaba, Pabre, Ziniare and Zorgho, for on-site observation of the implementation of the 250 cook stoves.

In addition, the information obtained allowed the Evaluation Team (ET) to verify that progress to date corresponds to the activities, outputs and outcomes set out in the logical framework of the project and that they are measured by the indicators defined in the logical framework.

The interviews carried out satisfactorily ensured that the views and experiences of all relevant stakeholder categories (men/women, project staff/participants, beneficiaries and non-beneficiaries, and funders) were appropriately included.

### 1.3 Country and project background

#### 1.3.1 Country context

Burkina Faso is a landlocked country in the middle of West Africa, surrounded by Mali, Côte d'Ivoire, Togo, Benin, Ghana and Niger. Burkina Faso does not have fossil fuel resources and relies totally on their import. The majority of the energy supply derives from traditional biomass, mainly firewood and charcoal, the national average consumption of firewood being estimated at 0,69 kg per person per day<sup>3</sup>.

The high consumption of firewood is creating an imbalance in the supply and demand for firewood, which is accelerating desertification and posing concerns for rural development and energy supply. The Government, supported by international donors, has taken measures to reduce woodcutting and consumption and to promote sustainable forest management through combating bushfires and illegal logging, reforestation and close surveillance of the forests

The small-scale enterprise sector with a high consumption of firewood is the "dolo" brewing activity and, restaurants both in urban, semi-urban and rural areas of Burkina Faso. In light of the above, the Government with the support of GEF and UNIDO has initiated a Program for the *Promotion of energy efficient technologies in the beer-brewing sector in Burkina Faso*, which aims to reduce concentrations of smoke and air pollution, reduce forest degradation and conserve biodiversity and, reduce greenhouse gas emissions by promoting deployment and use of energy efficient industrial cook stoves.

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<sup>3</sup> Evaluation ToR

### 1.3.2 Socioeconomic overview

Before the democratic renaissance of the 1990s, in Burkina Faso the State used to play a central role in planning and managing the country's economic system. Since the adoption of the June 1991 Constitution, the country underwent major changes moving from a state owned economy to a more mixed economy.

Since 1998, Burkina Faso has begun to privatize state-owned enterprises and in 2004 revised its investment code to attract foreign investment.

Burkina Faso is known as an agriculture based economy for decades, but there has been a shift in the country economy since the mid-2000s with the economic mining boom. This new situation has led to a significant change in the country GDP growth trends.

According to Trading Economics, the Gross Domestic Product (GDP) in Burkina Faso expanded 5.70% in the second quarter of 2014 over the same quarter of the previous year. GDP Annual Growth Rate in Burkina Faso averaged 6.15% from 1991 until 2014, reaching an all-time high of 25.70% in the fourth quarter of 1994 and a record low of -2.30% in the fourth quarter of 1999 (Trading Economics, Burkina Faso GDP Annual Growth Rate).

However there is a continuous significant growth of the GDP since 2004 to 2014 as per the figure below:



Source: Trading Economics | World Bank

From the above figure it appears that the combination of agriculture and mining are currently the main economic growth factors of the country.

### 1.3.3 Policy and legal framework

Burkina Faso adopted the *Code forestier* (Forestry Code) in 2011 under the *Loi no-003-2011/AN du 05 avril 2011* and promulgated by the President of the country in June 2011. The fact that the law was adopted at the parliament and promulgated later on by the President of the country shows the commitment and interest of the decision-makers to work for the protection of the forests in Burkina Faso.



In 2013 Burkina Faso passed a law in the parliament known as *Code de l'environnement au Burkina Faso* (Environment Code) under *la loi no 006-2013/AN du 02 avril 2013*, which is more generally focused on the protection of the environment.

All these policy documents aimed at reinforcing and mainstreaming protection of the environment through legal provisions are disseminated widely among all the stakeholders.

The National Sustainable Development Policy known as *Politique Nationale de Développement Durable (PNDD)* was also developed in order to set the path for a new thinking on the management of natural resources that take into account the needs and interest of future generations. This policy document that is holistic and interdisciplinary came as a support to the above-mentioned laws.

#### 1.3.4 Sector specific issues of concern

In Burkina Faso the majority of the energy supply derives from traditional biomass, (firewood and charcoal) and national average consumption of firewood is estimated at 0,69 kg/person/day. In order to promote a transition from firewood, the GoBF adopted a number of measures including subsidizing kerosene and LPG and increasing the forest taxes. Even so, firewood continues to be the main fuel source representing over 80% of the energy supply, and breweries consume 1/5th of this.

Dolo brewing is a traditional profession passed on from generation to generation and constituting an important source of income for women who brew in thousands of small-scale home-based breweries (4,000 in the capital alone). These employ traditional low-efficiency dolo cookers, and a considerable amount of firewood can be saved through ICS promotion (in the range of 20 to 67%, Smith, 2007).

This high consumption is creating an imbalance in supply and demand, which is accelerating desertification and is a source of concern for rural development and energy supply<sup>4</sup>.

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<sup>4</sup> CEO Endorsement document

## 2. Project summary

### 2.1 Project fact sheet

<b>Country</b>	<b>BURKINA FASO</b>
<b>Project title</b>	Promotion of Energy Efficient Technologies in the Beer Brewing Sector in Burkina Faso
<b>GEF / UNIDO ID</b>	GEF ID: 4285 UNIDO project No.: GF/BKF/12/001 – SAP 100046
<b>Area of implementation</b>	Plateau Central, Central-East
<b>Project site</b>	Saaba, Pabré, Ziniare & Zorgho
<b>Justification for the project</b>	Protection of the environment through the use of sustainable & energy efficient cook stoves
<b>Overall objectives</b>	To ensure environmental sustainability through reducing GHG emissions related to the Beer Brewing Industry in Burkina Faso
<b>Specific (main) objectives</b>	To stimulate the market demand for improved cook stoves in the Beer Brewing Industry
<b>Beneficiaries</b>	Women in the dolo brewing sector
<b>Project partners</b>	GEF, UNIDO, Government of Burkina Faso, CSOs
<b>Duration of the project</b>	24 months
<b>Time frame of the project</b>	December 2012 to December 2014
<b>Donors</b>	GEF, UNIDO, Government of Burkina Faso
<b>Project cost and co-financing</b>	US\$1, 160,000

## 2.2 Project description

### 2.2.1 Overview

This is the first pilot project of its kind for UNIDO and has the objective to promote fuel-efficient cook stoves in the beer brewery sector in Burkina Faso.

Specifically the project aims to promote energy efficient (EE) industrial cook stoves in the beer brewery sector in Burkina Faso. It will focus on large stoves used in beer breweries, which are traditionally made and consist of 4 “canaris” or pots that are positioned on four supports and sealed with fresh clay. Canaris can hold 80 to 100 l each.

The proposed GEF contribution will be used to address the barriers preventing the wider uptake of EE stoves and will directly contribute to the reduction of CO<sub>2</sub> emissions in Burkina Faso.

The intention is to replicate this project in countries with similar background situations in the beer-brewing sector<sup>5 6</sup>.

### 2.2.2 Project goal

The project aimed to ensure environmental sustainability through reducing GHG emissions related to the Beer Brewing Industry in Burkina Faso.

### 2.2.3 Project objective

The project’s objective was to stimulate the market demand for improved cook stoves (ICS) in the Beer Brewing Industry.

### 2.2.4 Expected outcomes

The project document covers four main components:

The first component aims at **improving the design of cook stoves** to achieve the optimum fuel efficiency. It supports building the national capacity in Burkina Faso on the design, construction and maintenance of EE cook stoves, installing 1,000 ICS and exploring the possibility to utilize the agro-waste produced during the beer brewing process for biogas production.

The second component aims at **stimulating the market demand for ICS** through carrying out private sector development initiatives. This will be achieved through the creation of microenterprise clusters of beer brewers and carrying out activities to support the development of effective distribution and supply chains for improved cook stoves.

The third component aims at **achieving the market scale for ICS** through upgrading the institutional capacity to develop and implement programmes of activities to support the deployment of ICS through carbon financing and particularly through the voluntary carbon market.

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<sup>5</sup> Terms of reference for the independent terminal evaluation and, GEF TF CEO Endorsement document (GEF IV 21.02.12 final)

<sup>6</sup> GEF TF CEO Endorsement document, final

The final component is the **project management and monitoring**. It includes the establishment of a project management unit (PMU) to monitor the implementation of the project on the ground. As well, independent international consultants will carry out an independent terminal evaluation of the project results and impacts.

### **2.3 Project implementation**

UNIDO is responsible for the implementation of the project and the fulfillment of the project's targets and objectives, to be achieved in close coordination with the Ministry of Environment and Sustainable Development, GIZ and other partners. The Project Manager at UNIDO headquarters will be responsible for the oversight and monitoring of the project, for procurement and recruitment actions and management of the teams of international/national experts working on the project.

The Ministry of Environment will lead the implementation of the project nationally while execution will be assured by regional Directions of the Ministry, in close collaboration with other project partners.

A Coordination Committee (CC) will be formed to oversee implementation and ensure execution of the project, ensure coordination with other initiatives and to provide feedback to UNIDO.

A Project Management Unit (PMU) will be responsible for day-to-day operation of the project on the ground and will consist of a National Project Coordinator (NPC) and additional expertise hired through technical assistance components as/when required.

### **2.4 Positioning of the UNIDO project**

The project will build upon experiences and lessons learned from past and ongoing projects that seek to promote Energy Efficiency (EE) and will also tap into UNIDO's competence in the promotion of clusters and business linkages.

Through project activities it is expected that key stakeholders, including the government, will be closely involved thus ensuring coordination with local efforts as well as continued support.

### **2.5 Counterpart organization(s)**

The counterpart organizations for this project were the following: Ministry of Environment and Sustainable Development, Institut de Recherche en Sciences Appliquées et Technologies (IRSAT).

## 3. Assessment

### 3.1 Design

Overall the project design was assessed by the ET as **moderately satisfactory**, as detailed below.

From the early stages of its design process there was a participatory approach and the original proposal document was developed in close collaboration with the Ministry of Environment, the dolo brewers<sup>7</sup> and in consultation with other stakeholders who were already on the ground. The involvement in particular of SNV and GIZ is considered to have been fundamental in helping the project to avoid duplication and overlap of efforts.

The projects design is considered to have remained fully aligned with that of the Project Identification Form (PIF) and Project Preparation Grant (PPG) documents, with in particular all PPG objectives having been “fully achieved”. The reported changes regard the inclusion of outputs and activities aiming to facilitate the creation of a sustainable market for the ICS and the achievement of market scale-up (through private sector support initiatives and the voluntary carbon market (VCM))<sup>8</sup>.

The project's objectives are assessed as clear, however as detailed below, some are considered practicable whilst others not. The lifespan of the project is also considered to be very short and makes it difficult to measure changes of the environment. The project was formulated based on the logical framework approach and the narrative synthesis is consistent; the products are necessary to achieve the expected results. The baselines and targets are clear; the indicators are suitable; the verification sources are accessible, and the risks and assumptions identified are external critical factors that are beyond the control of the project.

The project's design is considered to have been adequate as regards components relating to the improvement of the design, construction and maintenance of the ICS (Improved Cook Stoves), cluster development, and project management and M&E. However for the expected achievement of carbon financing and in particular the VCM, the design is considered to have been poor. Implementation experience proved these to be overly optimistic for the earlier, and ill-conceived for the latter. Although it must be said that these aspects were implemented to a certain extent, it is fair to say that what was initially designed did not take place during the implementation phase.

In addition, UNIDO appears to have not only underestimated the time necessary for the approval of the project at the level of the GEF, but also, as regards the administrative processes required to officially “register” a project in the books of the Ministry of Economy of Burkina Faso. The ET was informed that the delays to secure this approval – although on the long side for a number of case-specific reasons – was “well within acceptable standards for this type of administrative

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<sup>7</sup> The GEF CEO Endorsement Document refers in particular to interviews with “many of the beer brewers” and this was supported by interview data

<sup>8</sup> GEF CEO Endorsement document

procedure”<sup>9</sup>. Given that this approval is a prerequisite for the materialization of any type of official engagement by the country, including in-kind co-financing of activities, this design flaw effectively jeopardized the success of the project at start.

For the above reasons, the ET considers that the overall allotted timeframe for implementation of the project was unrealistic. It is important to point out however that whilst the official registration process was being pursued, in what is described as the “inception period”, a number of activities were implemented with the agreement of the country. These included an in depth analysis of the situation via a comprehensive Cluster Diagnostic Study (which includes a thorough value chain and beer production process analysis and interviews with relevant stakeholders), as well as awareness raising activities on the project and the ICS for beneficiaries and stakeholders (including governmental partners)<sup>10</sup>.

In support of the above assessment, the ET was informed that a project extension has been requested and granted until March of 2015, and this in order to allow completion of activities that were delayed due to the lengthy registration process, as well as by the political instability that gripped the country at the end of 2014.

### 3.2 Relevance

The **relevance** was assessed by the Evaluation Team as being **highly satisfactory**, as detailed below.

The relevance of the project as regards GEF, UNIDO, the Government of Burkina Faso and all other stakeholders is considered to be high, and the ET gathered evidence showing that the project is considered to have been timely in the sense that it matched current needs and priorities.

The project is considered to be consistent with the programme strategies of the GEF, and in particular the GEF Strategic Programme # 2 (SP#2) - Promoting energy efficiency in the Industrial Sector. In addition the project is in line with regional harmonization efforts of the GEF under its Strategic Programme for West Africa (SPWA).

The project is aligned with the country’s National Sustainable Development Policy as well as with the Laws governing forestry and environmental protection, in particular the *code de l’environnement* and the *code forestier*, which both emphasize the need for the country to reduce deforestation through strong protection of the environment. This alignment allowed the project to locate its PMU within the Ministry of Environment. In addition the National Project Coordinator appointed by the country is a senior civil servant and serves as technical advisor to the Minister.

The project is considered to be highly relevant and in line with UNIDO’s mandate, objectives and outcomes. It builds on the findings of participatory diagnostic studies, the promotion of business linkages (networks) and the strengthening of the capacities of the cluster stakeholders, to foster enterprise development, thereby contributing to sustainability.

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<sup>9</sup> Interview data

<sup>10</sup> UNIDO PIR 2013

The project is in line with the objectives of the ECOWAS' White Paper of 2011 aiming, amongst others, to facilitate the penetration of RE and EE in the region<sup>11</sup> and directly aligned with the priorities of the government.

The ET considers that the project is contributing to the market transformation process for the use of EE stoves, and although at this stage it is not possible to quantify, this in turn could contribute to the Government's efforts to mitigate climate change. This should be achieved in part via a net reduction of the quantities of wood required to fuel the industry (concomitant with reduced deforestation), and should be augmented through the replication effects of the project.

The project is considered to have remained relevant as regards to the changing environment and the ET does not consider that at this stage it necessitates any major changes. This said, and as was mentioned under the comments regarding design, the project would have benefitted from a more realistic assessment of the possibilities of implementing a complex carbon financing mechanism (Golden Standard).

### **3.3 Effectiveness**

Although the ET was informed that the delay due to the requirement to register the project with the Ministry of Economy and Finance set back the official start of the project significantly, the **effectiveness** of the project was assessed against the outcomes, as stated in the project document, and effectiveness has been determined to be **moderately satisfactory**, as detailed below.

#### **Outcome 1: Beer brewers adopt improved cook stoves**

Two main outputs were planned to achieve this outcome.

Output 1.1 included training courses for masons, as well as the analysis of the dolo beer brewing value chain.

The establishment of a financial mechanism (loan) to facilitate the installation of ICS in the clusters and, dissemination of results were planned under Output 1.2.

#### **Output 1.1: Technical capacity of stove manufacturers on design and construction of improved cook stoves optimized & fuel consumption upgraded**

1.1.1. Train 100 cook-stove manufacturers on improved cook stove construction and maintenance

1.1.2. Analyze the energy potential of agro- wastes (solid and liquid) generated during beer brewing

1.1.3. Identify appropriate RE technologies

1.1.4. Evaluate the economic viability of the various options

1.1.5. Compile recommendations on future use of agro-waste

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<sup>11</sup> The White Paper includes three major objectives: (i) the reinforcement of regional integration, (ii) the promotion of coherent, institutional and political frameworks for improved access to energy services in the ECOWAS region and (iii) the development of coherent energy programs with focus on poverty reduction - Source: ECREEE Independent MTE

to optimize fuel efficiency.

As regards the first expected output aimed at raising the technical capacity of masons to install ICS and, optimized fuel consumption, the *Institut de la Recherche en Sciences Appliquées et Technologies* – Institute for Research on Applied Sciences and Technologies (IRSAT) developed and imparted a training course to pre-selected masons from the 4 clusters and, a detailed analysis of value chains was concluded<sup>12</sup>.

Over the two-year period training activities were successfully completed. Training manuals and technical specifications were developed by the IRSAT and 3 training sessions were organized to train 48 masons in the construction of ICS. Furthermore, out of the trained masons, ten were selected to undergo additional training and attended training of trainers (ToT) workshops.

The result of the activities aiming to explore alternative uses of agro-wastes to optimize fuel efficiency were not implemented *per se* as the results of the detailed analysis of the dolo beer brewing value chain demonstrated that agro-wastes generated by this sector are minimal and already used and/or sold.

However the ET observed that beneficiaries affirmed that further to the acquisition of the ICS they have “seen” a significant decrease in the quantity of firewood required to brew the same quantity of dolo. Hence, albeit indirectly, the activity is considered to have contributed to the Output seeking optimized fuel efficiency, even though this was not linked to the agro food waste.

The ET was also informed that in order to facilitate the penetration of EE cook stoves, the project (co-financing), with the support of the Spanish International Cooperation Agency (AECID) and of a manufacturer of gas burning ICSs’ (Envirofit) facilitated the installation respectively of one gas based ICS and of two advanced self-supporting (mobile) stoves.

Finally, but importantly, the ET was able to confirm<sup>13</sup> that in addition to the generation of financial savings due to reduced consumption of firewood - which positively contributes to the overarching goal of environmental protection – every one of the brewers interviewed spoke about the significant improvements to their health.

The ET was informed that there was a notable decrease in the amount of smoke generated by the ICS from wood burning, as well as greatly reduced exposure to heat. This translated into a reduction of irritation to the eyes (not constantly bloodshot) as well as to improved quality of sleep (body did not have to evacuate the accumulated heat). As well, the savings have in many cases generated disposable income, which is reported to have been used to better feed, dress and school (payment of tuition) the children.

### **Output 1.2: Financing facility for improved industrial cook stoves set up**

1.2.1. Signature of an agreement with a local bank for administering the loan

1.2.2. Implement 1,000 projects in rural areas

1.2.3. Compile the results and lessons learned from the implementation of these

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<sup>12</sup> This analysis was undertaken as a part of the Cluster Diagnostic carried out during the inception phase of the project

<sup>13</sup> Interview data



projects

#### 1.2.4. Disseminate the lessons learned through different media

As regards activities planned under this output, seeking to facilitate the penetration of the ICS and to disseminate results, the ET was informed that negotiations with financial institutions and the co-financer of the project, implementation of projects in rural areas and, dissemination activities were all undertaken.

Regarding the setting up of a financing facility, further to exploratory discussions with the African Export Import Bank (Afrexim) and 9 local banks it became apparent that the compounded interest rates (Afrexim's, plus local banks') made the product uncompetitive<sup>14</sup> and therefore, unattractive to potential borrowers. The ultimately unsuccessful attempts by the NPC and UNIDO to identify a mutually acceptable modus operandi with the Afrexim Bank led to their withdrawal from the project. The loss of the expected co-financing from this partner is considered by the ET as having put the project at serious risk (and was properly identified as such in the project document p.11), however this challenging situation was diligently resolved when discussions were pursued with two of the initially identified potential financial institutions<sup>15</sup> and resulted in the development of a simplified procedure to provide access to micro credit for the brewers. In addition, support was provided to the clusters to explore the possibility of developing their own internal financial mechanisms (savings, self-financing, credits, etc.).

The Cluster Development Agents (CDAs) also provided support to the associations which have all, with the exception of 4, prepared business plans to access financing, be it through one of the two institutions mentioned above, or through self-financing mechanisms as detailed below. Of the 188 that selected to request a credit from the FAARF or the *Réseau des Caisses Populaires*, 17 were approved<sup>16</sup>.

8 associations opted to use the "tontine" model, collecting and pooling money from their members, and making it available on a rotational basis to one person per month as a soft loan. This traditional system that carries no interest allows dole brewers to implement their own action plans.

Regarding the deployment of ICS in rural areas, the ET was informed that based on the fact that the number of existing cook stoves in the 4 clusters in which the project operates<sup>17</sup> was lower than originally foreseen, the total number of stoves targeted in the 4 areas was reduced by the Coordinating Committee (CC) from 1,000 to 500 stoves, to be installed by the end of 2014<sup>18</sup>.

In order to stimulate the demand for the ICS, 16 demonstration units were built and as a result of this and of the previously mentioned training activities for masons, from December 2012 to December 2014 two hundred and fifty (250) cook stoves were purchased and installed in the four cluster areas of the project.

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<sup>14</sup> Reportedly interest rates offered were 7% for Afrexim and 7-8% for local banks

<sup>15</sup> The *Fonds d'Appui aux Activités Rémunératrices des Femmes* (FAARF) and, the *Caisse Populaire*

<sup>16</sup> Project Status Report GF/BKF/12/001 of 30 November 2014

<sup>17</sup> Data provided by the Cluster Diagnostic

<sup>18</sup> UNIDO PIR 2013

Although this number falls short of expectations the ET documented the fact that there is an increasing demand of ICS from dolo brewers in the four clusters visited. The cost of ICS is considered to be accessible by the dolo brewers<sup>19</sup> and the women do appreciate the efforts and quality of the work of the masons to support them.

The ET was also able to note numerous instances of women who are only selling the beer but not brewing it. It was repeatedly documented that these resellers would like to start brewing the beer but lack the materials/means to do so. In this regard the micro-credit approach initially foreseen would likely have helped them to start their own business.

As regards dissemination of information, toolkits were prepared and distributed to the 26 associations, comprised of materials to support the implementation of the project<sup>20</sup>. As well, the project contracted CINOMADE a film documentary company to produce an 11-minute documentary that was shown to the public in the four project areas. The first screening of this documentary was carried out in the presence of the ET which has concluded, further to the presentations and interviews with participants, that there is a need to re-work the documentary to incorporate more sub-titles and, if funds are available, to include additional scenes.

### **Outcome 2: Development of MSME clusters as a tool to achieve collective efficiency gains and foster the uptake of socially and environmentally responsible production practices**

Two main outputs were planned to achieve this Outcome.

Output 2.1 aimed to identify the most promising clusters, raising awareness regarding joint actions, providing direct support to the clusters activities by appointment of a project funded Cluster Broker and finally by supporting the preparation, implementation and monitoring of business oriented action plans.

Output 2.2 sought to understand the existing and potential commercial chains in order to promote buy-in for the ICS.

#### **Output 2.1: Microenterprise cluster association for beer brewers is developed and formalized**

2.1.1. Identify and select clusters with high concentrations of Microenterprises

2.1.2. Create awareness on benefits of greater linkage and cluster strategies

2.1.3. Appoint cluster Development Agents (CDAs) and provide training on cluster development approach

2.1.4. Prepare an action plan on enhancing business opportunities for beer brewers

2.1.5. Implement the action plan

2.1.6. Monitor and evaluate the activities in the cluster

The cluster development approach promoted by UNIDO was drawn from

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<sup>19</sup> On average a cook stove costs roughly 150 euros

<sup>20</sup> The Toolkits are comprised of 3 booklets (Members and ICS'; Action plan; Meetings record, with problem tree and solutions) as well as an accounting book

extensive experience in order to deliver output 2 and foster the establishment and progressive strengthening of the clusters that the project had identified initially. Although at the time of the conception of the project, the focus was to be on regions in the West, Center East, Boucle de Mouhoun, Centre South, Plateau Central and Center North regions, this had to be revised.

The ET was able to document the fact that this realignment was a consequence of several factors, including the time lapse between conception and effective approval of the project, during which identified partners continued with the implementation of their own activities on the ground, as well as of the time required for the registration of the project with the Ministry of Economy and Finance.

As a result of discussions with the Ministry of the Environment and agencies working in the area (GIZ and SNV, mainly) - it was agreed that the project would focus on areas in the East and North West suburbs of the capital Ouagadougou as well as the Plateau Central. Additionally, the Cluster Diagnostic concluded during the inception phase also demonstrated that the density of beer brewers in the selected areas was lower than in the capital, prompting the project to opt for the establishment of 4, rather than 3 clusters namely, Ziniaré, Zorgho, Saaba and Pabré and their neighboring villages.

The project appointed two CDAs to work closely with the women, one covering Saaba and Pabre and the second one Ziniare and Zorgho. The two CDAs were responsible for the organization of training activities and sensitization of the women brewers on the CBL approach. As a result of these activities, twenty-six (26) associations of dolo brewers were established and discussions were underway at the time of the evaluation for the establishment of the National Federation of Dolo Brewers. The dolo brewers, through these associations and the upcoming Federation seek to reinforce ties to the masons and distributors, as well as to harmonize the supply chain.

Using a social communication approach allowed the CDAs to raise dolo brewers' awareness on the advantages associated with a network on which to rely to expand their economic activities. More than 130 women were trained by the CDAs on topics related to hygiene, entrepreneurship and basic management skills and, cluster development. In addition, as was previously mentioned, the 26 associations were provided with a toolkit including various management and information materials, and posters.

Project monitoring and evaluation activities were covered by the PMU, comprised of the National Project Coordinator and the two CDAs who mainly monitored the implementation of project activities. The IRSAT is responsible for the monitoring of the quality of the ICS' built by the masons, however at the time of this evaluation, on the ground activities to monitor the quality of the ICS' built in the 4 clusters by the IRSAT team had not taken place. However the ET was informed that these activities would take place during Q3/2015, over a period of 10 days.

## **Output 2.2: Vertical linkages between the cluster and the distribution and supply chains for improved cook stoves are established**

2.2.1. Evaluate the existing sales, distribution and supply chains for improved cook stoves

2.2.2. Develop an action plan promoting efficient commercial chains for improved cook stoves

2.2.3. Implement the action plan

2.2.4. Monitor and evaluate implementation of the action plan

Output 2.2 resulted in the preparation of an action plan for the promotion of efficient commercial chains for ICS. This was developed by the CDAs and is essentially an awareness & sensitization campaign to be used in the villages to promote the improved stoves and foster the enthusiasm of the dolo brewers.

The ET was informed that the CDAs maintain a tally sheet of the women trained as well as those who received, installed and are using the ICS in their compound, as part of their monitoring responsibilities.

### **Outcome 3 - Human capacity to prepare carbon-financing projects is developed**

One main Output is contemplated to fulfill this Outcome, essentially covering the training and support to a group of project developers to foster the preparation and eventual approval of Gold Standard (GS) projects in order to scale up the project through carbon finance.

#### **Output 3.1: A national cadre of project developers, project operators and monitoring entities trained**

3.1.1. Training 20 master project developers on GS project identification and development

3.1.2. Establish a monitoring methodology

3.1.3. Train 50 project operators on registration and monitoring requirements

3.1.4. Establish a platform for interaction between project developers, project operators, DOE, CME, DNA and other relevant stakeholders

Through the activities undertaken, 22 master project developers were trained on design of a carbon market project (GS project). Trainees included government representatives, development partners, local NGOs and representatives of the private sector.

Regarding the registration and monitoring requirements, the ET was informed that although Developers had been trained, they did not consider that they were capable of writing a project unassisted, let alone register it. The complexities of the procedures are difficult to master and the recurring question was “does the project have the means to support developers to prepare, validate and register the GS projects?”

Although no GS projects have been registered for dolo brewers, the project is currently engaged in discussions with GIZ and SNV regarding the development of a Nationally Appropriate Mitigation Actions (NAMA) project. This should assist Burkina Faso in its efforts towards a low-carbon development trajectory and therefore partly contribute to the fulfillment of the projects objective of reduction of GHG.

This said, the training provided allowed the NGO *Tii Paalga* to design a GS project, with the assistance of the project, which initially included the ICS for dolo. However due to the inherent complexities of the selected methodology (AMS-2.G), *Tii Paalga* opted for the less sophisticated micro-scale methodology used for household cook stoves only, effectively cutting this project out.

On a more positive note, to date, almost 9,000 household stoves have been installed and the carbon credits earned have allowed Tii Paalga to successfully secure funding from the *Cooperation Wallonie-Bruxelles*. Plans to use the revenues of this GS project to fund other activities with the communities in its intervention area are underway.

### 3.4 Efficiency

**Efficiency** of the project is assessed by the ET as being **moderately unsatisfactory** with a limited number of project Outputs delivered on target. Although the outputs and activities that have been completed were implemented in a cost-effective and efficient manner, the planned/actual ratio of expenditures (76%) is low, at this stage in the life of the project.

The ET was not informed of any delays from UNIDO, whose contributions were described as having been made at the expected level and in a timely manner.

The ET was informed of shortcomings and delays as regards provision of inputs from Government counterparts, in particular as the late registration of the Project at the national level by the Ministry of Economy and Finance did not allow funding from the Government to be disbursed upon project signature. This had effects on implementation of activities on the ground.

In addition there has also been a significant shortcoming in the expected levels of co-financing of the project. In particular the Project Document includes confirmed co-financing for US\$500,000<sup>21</sup> based on a letter from the Director of Project and Export Development Finance of the African Export & Import Bank, which clearly states that the Bank “does not make any firm commitment in this regards<sup>22</sup>”. It is unfortunate that the Expression of Interest towards the project was taken at face value by the GEF and contributed to the approval of the project, without seeking to engage further other potential partners in the country, or if necessary, the region.

Time required to register the project at the level of the Ministry of Economy directly affected the availability of resources, as in-kind counterpart financing (office space, etc.) could not be made available as fast as the team in charge of implementation at the national level would have expected/required.

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<sup>21</sup> The amount listed in Section B of the CEO Endorsement Document as a “soft-loan” represents 68% of the total project co-financing

<sup>22</sup> This refers specifically to considering “cooperating with UNIDO in implementing the Project to improve EE resulting in economic and social development in one of our member countries”.

Table 1. Overview of available funds

<b>Project components</b>	<b>GEF financing (in US\$)</b>	<b>GEF financing (in per cent)</b>	<b>Co-financing (in US\$)</b>	<b>Co-financing (in per cent)</b>	<b>Total financing (in US\$)</b>
1. Technology deployment and demonstration	90,000	32	280,000	68	370,000
2. Stimulating the market demand for improved cook stoves	200,000	40	300,000	60	500,000
3. Scaling up through the voluntary carbon market	80,000	50	80,000	50	160,000
4. M&E – Final evaluation	15,000	50	15,000	50	30,000
5. Project management	45,000	45	55,000	55	100,000
<b>Total project cost</b>	<b>430,000</b>	<b>37</b>	<b>730,000</b>	<b>63</b>	<b>1,160,000</b>

Source: Evaluation terms of reference

Table 2. Expenditures as at project closure

100046	200000217	2012		2013		2014		2015		Total	
Budget line	Budget released (in US\$)	Commitments	Disbursed	Commitments	Disbursed	Commitments	Disbursed	Commitments	Disbursed	Commitments	Disbursed
11	55,758	0	16,541.05	0.01	19,425.67	0	10,584.85	0	8,934.10	0.01	55,485.67
15	18,473	2,316.06	3,762.49	4,325.98	8,090.68	4,155.30		-6,230.22	5,787.87	4,567.12	17,641.04
16	142	0		0	141.54	0		0		0	141.54
17	128268		3,438.60	16.26	45,089.41	-386.89	64,831.08	1.68	12,266.37	-368.95	125,625.46
21	165,904	108,975.00		-14,148.40	54,820.65	-48,138.85	63,715.91	-42,860.42	29,827.17	3,827.33	148,363.73
30	40145	0.00		0.01	8,314.45	285.65	24,726.10	-285.67	5,123.33	-0.01	38,163.88
45	6983	4,631.86		-4,575.00	4,614.95		2,311.02			56.86	6,925.97
51	14327	880.00	332.30	-715.39	4,242.67	-0.02	6,841.00		289.27	164.59	11,705.24
<b>Total</b>	<b>430,000</b>									<b>8,247</b>	<b>404,052.53</b>

Source: UNIDO

### 3.5 Sustainability

The ET assesses the medium term **sustainability** of the project as **likely**.

The first element that prompts the ET to consider sustainability of this project positively is based on the fact that the installed ICS have generated a high level of interest, which is manifested directly to the owners by potential stakeholders (coming sometimes from distant villages). In addition, the fact that the trained mason are from the communities, combined with the relatively low price of ICS construction are considered factors that play an important role for the projects sustainability.

As well, the ET considers the replicability of the project to be highly likely, which contributes to the positive assessment of the project's sustainability. Reinforcing this assessment are the noted and direct positive impacts that the introduction of ICS have had on the main stakeholders. The ET noted these improvements as regards in particular, health (reduced exposure to smoke and heat), education (savings generated are used to pay for tuition and send children to school), general wellbeing, and the environment.

It is also interesting to note that although the withdrawal of Afreximbank from the project compromised the effective disbursement of loans for the associations of women dolo brewers and contributed to a sense of disappointment, this also prompted them to explore and implement innovative financial solutions (tontines). This mechanism is also considered to be contributing positively to the longer-term sustainability of the project. In this light, the ET considers the current financial risk to the project to be low. Overall, the ET did not gather evidence indicating the possibility of future socio-political, institutional framework and governance, or environmental risks that can compromise the sustainability of the project.

The ET was not able to document any evidence of catalytic effects at this stage, even though there are sectors (such as bakeries) in Burkina Faso that could benefit from a diversification-motivated approach. This would in essence promote the inclusive and sustainable industrial development priorities of UNIDO.

Another opportunity well worth pursuing would be to build on the collaborative partnership established by UNIDO with ECREEE and which led to the commissioning of a gas fueled ICS in Pabré. This could facilitate the promotion of investments to the agro-food sector.

### 3.6 M&E systems

The M&E design in the project proposal is adequate considering this is a GEF IV project, however in terms of implementation staff turnover and the lack of a clear and sound M&E system at the PMU were not helpful in the day to day implementation of M&E activities. In addition, a number of the planned components of the system have not yet been completed. This includes the on-the-ground monitoring of the installed ICS by IRSAT, as well as monitoring of specific indicators described in the CEO Endorsement Document (Direct and indirect energy savings; GHG emissions reductions).

As regards funds available for M&E systems, current best practices for M&E indicate that these are expected to represent 10% of the overall project budget. In this case the M&E budget is US\$30,000, which is considered to be very low (less than 3%). This represents a significant challenge given that a reliable monitoring



system requires dedicated staff time, and a thorough evaluation requires the ability to carry out field verification, and ideally extensive triangulated interviews and surveys.

As regards the final evaluation of the Project, this was carried out between January and February 2015 and the current report is the result of this independent terminal evaluation.

### **3.7 Monitoring of long-term changes**

Potential longer-term impacts of the project are considered fully aligned with the expectations laid out in the original project document, as previously mentioned. In particular, the expected impacts would be the reduction of Greenhouse Gas emission, the diminution of health related diseases due to the heat and smoke and the reduction of deforestation, as a direct result of the reduction of firewood consumption by dolo brewers.

### **3.8 Project coordination and management**

The national management and overall co-ordination mechanisms were efficient and effective within the overall perspective of the national constraints and intra organizational operational complexities.

The Project was designed with the collaboration and participation of the recipient government to ensure that it is aligned with the national priorities. In this regard the approach complies with the Paris Declaration. In terms of implementation UNIDO, GEF and the Government of Burkina Faso were involved from the kick off workshop to the terminal evaluation of the Project.

UNIDO has played a central role starting with deployment of a Program Manager to the field to the hiring of the local National Project Coordinator. In this sense there is a clear promotion of local ownership and local capacity building for similar future initiatives.

A Coordinating Committee (CC) was established and met 3 times (July and December 2013 and July 2014). The Terms of Reference for the CC indicate, amongst others<sup>23</sup>, that its mandate is to “revise the plans of the project, provide advice as regards strategies and solutions to ensure the achievement of the objectives of the project”. The ToRs also provide a list of points on which the SC is habilitated to emit recommendations to UNIDO and its Implementing partners. In addition, the ToRs provide information on composition and rules of procedure for the SC.

A Project Management Unit (PMU) supervised by UNIDO (Vienna) was established to provide administrative support to the CC.

Although the PMU was established, given the delays with the registry of the project via the Ministry of Economy and Finance, co-financing related support could not be put in place (to make available for example office space <sup>24</sup>), nor

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<sup>23</sup> The ToRs also provide information on the composition and rules of procedure for the SC, as well as on the PMU

<sup>24</sup> The country was reportedly only able to make office space available after the registration took place, in March of 2014, (instead of June 2012 as was initially expected)

could the project launch investment activities and training<sup>25</sup>. The delay is also responsible for the CC not having met 3 times a year, starting from December 2012 as laid out in the ToRs.

UNIDO HQ and field based management and coordination was provided in a timely and effective manner and although all of the project's outputs have not been achieved as expected, this has not been due to lack of effort on their part. The ET was able to document the constant level of support and commitment provided by HQ and most importantly - as they are on the front line - of the team on the ground. UNIDO interventions and support were highly appreciated by all interviewees.

UNIDO is also described as having started exchanges, taken the lead on initiatives and setting up and coordinating an open forum for discussions between the MoEf, FAFASO, SNV and GIZ. Meetings were to be held regularly but in reality are held on an ad hoc basis, as and when required by partners.

Finally there is evidence of in-house coordination between at least two branches of UNIDO (the Business, Investment and Technology Service Branch (PTC/BIT) and the Energy Branch (PTC/ENE)), demonstrating the potential for initiatives that allow for the meeting between development and social capital and technical expertise, which generates value added for UNIDO and its beneficiaries.

### **3.9 Gender mainstreaming**

Women are the main stakeholders of the Project since dolo brewing is an activity traditionally reserved to them. Although the project directly contributed to the empowerment of these women by providing them with the tools to re position themselves in their households, communities and villages, the main socioeconomic impacts will only affect a relatively small sector of the population, which is those involved with the actual dolo brewing and, although a small level of employment could likely be generated, this is not considered to represent a significant outcome.

This said, and as has been mentioned above under for example the Effectiveness heading - women have received extensive training throughout the project, which has increased their knowledge base in several areas (hygiene, entrepreneurship management, cluster development, etc.). As a result the beneficiaries were enabled to handle their household's finances, ameliorate their production and improve their business.

More specifically, women formed associations – and a National Federation is expected to become a key player in the near future – and their augmented social capital has facilitated the establishment of direct links with the key stakeholders of the supply chain, and increased the bargaining power of women in their communities.

The project has directly contributed to improving women's health, and by contributing to make the dolo brewing process more efficient, now consumes less of their time. This has not only allowed them to improve the wellbeing of their households (health, clothing, schooling, etc.) but also to take up different livelihood activities - thus potentially increasing their income. This increased

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<sup>25</sup> UNIDO PIR 2013

financial and social power is a direct result of the project and additionally is likely to contribute to the wellbeing of the community in which they reside.

Another minor outcome might potentially touch on the youth, as this sector can also be involved in the future (masons). For example, the masons interviewed are all young and come from the beneficiaries' communities where they benefit direct and indirectly from project implementation. Direct benefits are skills acquired through the training of mason and revenues earned through the construction of the ICS. Indirect benefits are the network of masons in which they are involved now in the four clusters.

In addition, the moral benefits and consideration that both dolo brewers and masons receive from the other women dolo brewers and their community as a whole for their contribution towards the protection of the forest and the environment must also be taken into account.

### **3.10 Procurement issues**

No significant procurement-related issues were brought to the attention of the ET during the interviews<sup>26</sup> nor did the ET document any issues in the available documentation.

However reference was made during the interviews to the fact that the process to finalize the main contract under the project had taken almost two months, prompting the remark that if the project had been larger, the beneficiary could have benefitted from an in depth session to familiarize him/her with the administrative processes of UNIDO.

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<sup>26</sup> An administrative waiver was required to formalize the engagement of one of the executing partners

### 3.11 Ratings overview – Project performance as per GEF criteria

Criterion	Evaluator's summary comments	ET rating
<b>Attainment of project objectives and results (overall rating)</b> <b>Sub criteria (below)</b>		<b>MS</b>
Effectiveness	Shortcomings were identified, however measures were taken to reduce their impact	<b>MS</b>
Relevance		<b>HS</b>
Efficiency	Shortcomings were identified which affected the project	<b>MU</b>
<b>Sustainability of project outcomes (overall rating)</b> <b>Sub criteria (below)</b>		<b>L</b>
Financial		<b>L</b>
Socio political		<b>L</b>
Institutional framework and governance		<b>L</b>
Ecological		<b>L</b>
<b>Monitoring and Evaluation (overall rating)</b> <b>Sub criteria (below)</b>		<b>MS</b>
M&E design		<b>S</b>
M&E plan implementation (use for adaptive management)	Shortcomings were identified which need to be addressed	<b>MS</b>
Budgeting and funding for M&E activities	Rating given according to accepted criteria at time of approval	<b>MS</b>
<b>UNIDO specific ratings</b>		<b>S</b>
<b>Quality at entry</b>		<b>S</b>
<b>Implementation approach</b>		<b>HS</b>
<b>UNIDO supervision and backstopping</b>		<b>S</b>
<b>Overall rating</b>		<b>MS</b>

#### RATING OF PROJECT OBJECTIVES AND RESULTS

- **Highly satisfactory (HS):** The project had no shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.
- **Satisfactory (S):** The project had minor shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.

- **Moderately satisfactory** (MS): The project had moderate shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.
- **Moderately unsatisfactory** (MU): The project had significant shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.
- **Unsatisfactory** (U) The project had major shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.
- **Highly unsatisfactory** (HU): The project had severe shortcomings in the achievement of its objectives, in terms of relevance, effectiveness or efficiency.

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

## **RATINGS ON SUSTAINABILITY**

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

### Rating system for sustainability sub-criteria

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

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

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

## **RATINGS OF PROJECT M&E**

Monitoring is a continuing function that uses systematic collection of data on specified indicators to provide management and the main stakeholders of an ongoing project with indications of the extent of progress and achievement of

objectives and progress in the use of allocated funds. Evaluation is the systematic and objective assessment of an on-going or completed project, its design, implementation and results. Project evaluation may involve the definition of appropriate standards, the examination of performance against those standards, and an assessment of actual and expected results.

The Project monitoring and evaluation system will be rated on *M&E design*, *M&E plan implementation* and *Budgeting and funding for M&E activities* as follows:

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

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

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

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

## **4. Conclusions, recommendations and lessons learned**

### **4.1 Conclusions**

UNIDO is a highly valued partner and has demonstrated its capacity to align its policies and objectives with those of the recipient country, which is in line with the spirit of the Bussan declaration. In doing so UNIDO has earned the respect of the Project's stakeholders who see the Organization as a valuable partner that takes into consideration the needs, policies and values of its counterparts in recipient countries.

#### **4.1.1 Relevance**

The projects relevance is rated as highly satisfactory. The project is considered highly relevant at the national level, and aligned with governmental priorities. It is also considered highly relevant for stakeholders and the environment.

#### **4.1.2 Effectiveness**

Overall the effectiveness of the project is considered to be moderately satisfactory. This is considered low as regards the deployment of Improved Cook Stoves (ICS) and financing. Also a number of indicators have not yet been measured i.e., the reduction in consumption and direct emissions of GHG; and, the registration of a Gold Standard project.

Effectiveness is considered adequate as regards training and technical capacity for construction and maintenance of ICS, as well as the technical capacity for the preparation of Voluntary Carbon Markets (VCM) projects.

Effectiveness is also considered adequate as regards the capacity building of dolo brewers on issues of hygiene, entrepreneurship and basic management skills, cluster development and loans management.

#### **4.1.3 Efficiency**

Efficiency is considered to have been moderately unsatisfactory and this is due in part to the delayed start of the project. Although this was not controlled by the project this has nonetheless hindered the efficient disbursement of funds, which currently stand at around 76% of the overall budget.

#### **4.1.4 Sustainability and Impact**

The ET concluded that the project is likely to be sustainable in different ways. First of all most women interviewed recognized the ICS have positively affected their dolo brewing activity, to the extent that other women are asking and willing to build the same cook stoves. Therefore in terms of sustainability the demand for replicability from women either from the same village or surrounding villages is a good indicator of project sustainability.

On the other hand all the masons trained according to the women and the masons themselves are from the villages and the communities of dolo brewers associations. In this regard their availability and easy access is a key factor in the project sustainability. As most women said at any time they can call on the

masons for the maintenance, repair of their ICS as they can call on them to build new ones.

In addition the delays detailed above did not have a verifiable impact on project sustainability and furthermore, an extension of the Project was agreed among the stakeholders to compensate for the delayed registration procedures. It is also notable in particular that the withdrawal of Afreximbank has enabled the women to rely only on their "tontine scheme" to implement their activities, further promoting sustainability.

The most important impact according to the interviewed beneficiaries is the increase of revenues and savings, reduction of illness and health related problems, reduction of firewood consumption, and reduction of deforestation.

Last but not least, with regard to the cost of a cook stove construction which is around 10 000 F CFA, quite affordable, the women are confident that it will certainly play an important role in the project sustainability.

#### 4.1.5 Programme management

UNIDO initially hired a Vienna based Chief Technical Advisor (CTA) who relocated to Ouagadougou. The CTA was assisted by two CDAs for a period of approximately one year. Further to the departure of the CTA, a national civil servant on leave from his functions of technical advisor to the Minister of the Environment was appointed to act as CTA.

The first two CDAs also left the Project for personal reasons and were replaced by two new ones. For a two year project, such changes understandably had negative effects on the programme management and did not facilitate the implementation of a monitoring system. This said, overall programme management is considered to have been satisfactory.

#### 4.1.6 Recommendations

- UNIDO should consider urgently implementing mechanisms to guarantee effective follow up of all project indicators.
- UNIDO should consider formalizing a process to update Logframes as implementation of projects progresses, and they need to be adapted to changing realities and/or encounters obstacles.
- UNIDO should consider reorienting the project to allow dolo resellers looking for means to become producers to be integrated into the projects structure and receive support.
- UNIDO should ensure that the documentary film receives as large as possible diffusion.
- UNIDO should consider – in the context of industrialization - developing linkages to the efforts currently underway (private) to bottle dolo for commercial purposes.
- UNIDO should consider developing guidelines regarding the process to confirm co-financing commitments made to the projects at the development stage.



- UNIDO should explore options to develop collaborative partnerships to facilitate the promotion of investments to the agro-food sector.
- UNIDO should consider developing a mechanism to follow up with project registration in countries where this is required, in order to minimize delays when they are encountered.
- The country should consider implementing mechanisms to expedite the registration of internationally funded projects.

#### 4.1.7 Lessons learned

- Co-financing without a firm and clear commitment from the other stakeholders can seriously undermine the implementation of a programme.
- Programme registry at the Ministry level in the recipient country should be considered as a priority. In doing so UNIDO ensures that the national counterpart plays effectively the role it is supposed to play.
- The low price of Improved Cook Stoves (ICS) and the origin of masons are determinant to produce a spillover effect thereby ensuring the sustainability of the programme.
- A high staff turnover coupled with an unclear sound M&E system does impact negatively in program implementation and day-to-day monitoring.
- The set-up of a Coordination Committee has highly contributed to the ownership of the programme by local stakeholders and facilitates participatory programme implementation. UNIDO should consider the creation of this committee on all its programmes in the future.

## **Annex A: Terms of reference**

**DRAFT**

**Terms of reference**

**Independent terminal evaluation of UNIDO project**

**Promoting energy efficiency technologies in beer brewery  
in Burkina Faso**

**UNIDO Project Number: GF/BKF/12/001 – SAP 100046**

**GEF Project Number: 4285**

November 2014

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## I. Project background and overview

### Project factsheet

<b>Project title</b>	<b>Promoting energy efficiency technologies in beer brewery sector in Burkina Faso</b>
<b>GEF ID Number</b>	<b>4285</b>
<b>UNIDO ID (SAP Number)</b>	<b>GF/BKF/12/001 – SAP 100046</b>
<b>Country(ies)</b>	<b>Burkina Faso</b>
<b>GEF Focal area and operational program</b>	<b>GEF Focal Area: Climate Change 2, SP2 – Industrial Energy Efficiency</b>
<b>GEF Agencies (Implementing Agency)</b>	<b>UNIDO</b>
<b>Project executing partner</b>	<b>Institut de Recherche en Sciences Appliquées et Technologies (IRSAT), Ministry of Environment and Sustainable Development</b>
<b>Project implementation start date</b>	<b>April 2012</b>
<b>Project duration (months)</b>	<b>33</b>
<b>GEF Grant (US\$)</b>	<b>430,000</b>
<b>UNIDO Agency fee (US\$)</b>	<b>43,000</b>
<b>UNIDO Inputs (US\$)</b>	<b>130,000</b>
<b>Counterpart inputs – Co-financing (US\$) at CEO Endorsement</b>	<b>730,000</b>

Source: Project document

## Project summary

The project Promoting energy efficiency technologies in beer brewery sector in Burkina Faso, UNIDO ID: GEF/BKF/12/001 - SAP 100046, GEF ID Number: 4285 is the first pilot project of its kind for UNIDO and has the objective to promote fuel efficient cook stoves in the beer brewery sector in Burkina Faso. **The intention is to replicate this project in the countries with similar background situation in the beer brewing sector.**

The project entailed three project components:

1. **Project component 1 (PC1):** Deployment and demonstration of technology, whose expected outcome was to improve the cook stoves design in order to achieve optimum fuel efficiency.

The PC1 had the following expected outputs:

- I. The technical capacity of 100 stove manufacturers on design and construction of improved cook stoves upgraded.
  - II. Financing facility for improved cook stoves set up.
  - III. Over 1,000 improved energy efficient cook stoves installed.
  - IV. The potential of biogas production from agro residues produced during beer brewing is assessed.
2. **Project component 2 (PC2):** To stimulate the market demand for improved cook stoves, whose outcome was to stimulate the market demand for improved cook stoves through private sector development initiatives. The project component 2 contained the following expected outputs:
    - I. Microenterprise clusters of beer brewers developed.
    - II. The distribution and supply chains for improved cook stoves improved to support better production and marketing and increase sales.
  3. **Project component 3 (PC3):** Scaling up through the voluntary carbon market, whose expected outcome was achieving scales of investments in improved cook stoves through the carbon financing. The project component 3 had the following expected output:
    - I. National capacity for developing and implementing cook stove projects within the voluntary carbon market is established.

The project is funded through a GEF grant, amounting to US\$430,000, a UNIDO contribution of US\$130,000; the implementing agency's fee is US\$43,000; and the counterparts' co-financing is US\$730,000, which amount to total project budget of US\$1,160,000. Details on the budget will be presented in section 5.

Burkina Faso has no policies or strategy directions on the utilization of renewable energy and energy efficiency technologies. The regional harmonization with the GEF Strategic Program for West Africa will be undertaken through ECREEE, which in its turn coordinates with ECOWAS, the project did liaise with ECREEE its activities in promoting energy efficiency and ECREEE was a member of the project coordination committee as an observer. Burkina Faso has asked the FIP by the World Bank to assist the Government in elaborating a national strategy for the regulation of wood fuel trade through supporting the harmonization and consistency in the implementation of

laws and regulations in the forest sector. This project contributed to devise policies controlling the fuel wood consumption.

An independent terminal evaluation for this project was foreseen in the project document as part of the Budgeted Monitoring and Evaluation Plan, with the purpose of conducting a systematic and impartial assessment of the project in line with UNIDO and GEF Evaluation policies. The terminal evaluation is planned to take place from November 2014 to December 2014.

### **Background information**

Burkina Faso is a landlocked country in the middle of West Africa, surrounded by Mali, Côte d'Ivoire, Togo, Benin, Ghana and Niger, which does not possess fossil fuel resources and relies totally on their import. The majority of the energy supply in Burkina Faso derives from traditional biomass, mainly firewood and charcoal where the national average consumption of firewood is estimated at 0.69kg per person per day. In order to promote the transition from firewood, the Government adopted a number of measures including subsidizing the price of kerosene and LPG and increasing the forest taxes. Nevertheless, firewood continued to be predominantly the main fuel source in the country representing over 80% of the energy supply, thereby creating an imbalance in the supply and demand for firewood, which is accelerating desertification and posing concerns for rural development and energy supply. The Government, supported by international donors, has taken measures to reduce wood cutting and consumption and promote sustainable forest management through combating bushfires and illegal logging, reforestation and close surveillance of the forests.

In Burkina Faso, beer brewing, the so-called dolo is a traditional profession that is passed on from generation to generation. It constitutes an important source of income for rural women who brew in small scale home-based breweries. There are thousands of these breweries around the country and about 4,000 in Ouagadougou alone, and they employ traditional dolo cookers, mainly the regrouped bookers and line cookers that use firewood as fuel. Breweries are a significant consumer of firewood, utilizing one fifth of the firewood consumption in Burkina Faso annually.

Traditional stoves have a low combustion efficiency which results in longer cooking times and as such higher consumption of the firewood. The low efficiencies of the cookers can be attributed to incomplete combustion, poor heat transfer from the flame to the jars and massive heat losses to the surroundings. A considerable amount of firewood in the range of 20-67% can be saved through promoting improved stoves. Other benefits of promoting the improved cook stoves include the reduced concentrations of smoke and greenhouse gas emissions, reduced pressure on forests and related resources, reduced costs of production resulting in a higher income generation and developing skills.

Notwithstanding the well-known benefits of improved cook stoves, the replacement of the traditional cook stoves did not occur at the rate that it should, due to a number of barriers that are preventing such scale-up:

- **Economic barriers:** In Burkina Faso, there were no financing schemes to support the dolotiers (beer brewers) in financing the purchase of the improved cookers. The improved cookers were not affordable for the dolotiers whose disposable income is in the range of US\$1 to 2 a day, despite their low cost of US\$150 to US\$200;

- Technical barriers: A number of different technologies for improved cook stoves were available such as LPG cook stoves, cook stoves with earthenware jars or aluminum pots. The barriers related to technology included lack of skill on the construction and maintenance of the improved cook stoves and promoting technologies that were not easily disposable for local communities and require importing expensive components;
- Information barriers: the lack of awareness of the local communities on the economic, environmental and health benefits of improved cook stoves.

The UNIDO beneficial Cluster development approach has built Clusters, i.e. territorial agglomerations of firms engaged in related production activities, which can play a leading role in the development of a dynamic private sector. Enterprises that were located in a cluster enjoyed a range of benefits that are out of reach for isolated firms, particularly micro, small and medium enterprises, and assisted firms and institutions in underperforming clusters to achieve and enhance advantage of collective efficiency. At a minimum, the project aimed to establish one cluster of around 30 to 40 micro-enterprises in each of the project geographic regions. The main features of the UNIDO strategy were:

- Participatory approach to vision building;
- Business linkages;
- Capacity building; and
- Governance and sustainability.

The global environmental benefits associated with the implementation of improved cook stoves projects were:

- Reduced concentrations of smoke and air pollution;
- Reduced forest degradation and conserve biodiversity; and
- Reduced greenhouse gas emissions.

The estimation of the emission reductions resulting from the adoption of energy efficient cook stoves was calculated based on the small scale methodology AMS-II.G. version 3, which is applicable for Gold Standard Projects, and was estimated to 40,654t CO<sub>2</sub> eq. per annum for 1,000 cook stoves with an energy efficiency of 35%. The estimated reductions per stove for the duration of 1 year are 406.54t CO<sub>2</sub> eq.

Considering the base calculation made above on the emission reductions achieved per stove per year, the direct reductions that can be attributed to the project due to the implementation of 1000 new improved cook stoves during a two year period are in the range of 406,540t CO<sub>2</sub>e with a lifetime estimate of ten years.

Using the GEF bottom up methodology and assuming a market replication factor of 3, the indirect reductions attributable to the project were 1,219,620t CO<sub>2</sub>e. Using the GEF top down methodology and assuming a significance level 3 considering that GEF contribution is substantial but modest indirect emission reductions could be attributed to the baseline, with a GEF, the indirect reductions are estimated at 325,230t CO<sub>2</sub> eq.

### **Project objective**

The project aimed at promoting energy efficient industrial cook stoves in the beer brewery sector in Burkina Faso, focusing on large cook stoves used in beer breweries in the west, center east, boucle de Mouhoun, Centre South, Plateaus Central and Center North regions, which are traditionally made. These cook stoves consist of 4

canaris or pots of 80-100 l capacity each that are positioned on four supports and sealed with fresh clay.

The proposed GEF contribution should have been used to address the barriers preventing the wider uptake of energy efficient stoves. It was to directly contribute to the reduction of 40,654t CO<sub>2</sub>e of emissions through promoting energy efficient cook stoves in Burkina Faso.

The project consists of four main components:

The goal of the first component was to improve the design of cook stoves in order to achieve the optimum fuel efficiency. It supported building the national capacity in Burkina Faso on the design, construction and maintenance of energy efficient cook stoves, installing 1,000 improved cook stoves and exploring the possibility to utilize the agro-waste produced during the beer brewing process for biogas production.

The second component aimed at stimulating the market demand for improved cook stoves through carrying out private sector development initiatives. The latter was to be achieved through creation of microenterprise clusters of beer brewers and carrying out activities to support the development of effective distribution and supply chains for improved cook stoves.

The third component intended to achieve the market scale for improved cook stoves through upgrading the institutional capacity of developing and implementing programmes of activities to support the deployment of improved cook stoves through carbon financing and particularly through the voluntary carbon market.

The final component was the project management and monitoring, including the establishment of a project management unit to monitor the implementation of the project on the ground. The evaluation of the project results and impacts was to be carried out by independent international consultants.

**The overall project objective is to promote fuel efficient cook stoves in the beer brewery sector in Burkina Faso.**

### **Project implementation arrangements**

UNIDO has acted as GEF's implementing agency for this project, with the responsibility for project implementation, and the fulfilment of the project targets and objectives, in close coordination with the Ministry of Environment and Sustainable Development. GIZ and other project partners were also ensured. The project manager at UNIDO headquarters was responsible for the oversight and monitoring of the project and has reported to the GEF on the project progress according to the GEF reporting schedule, as well as for initiating procurement and recruitment actions and management of teams of international/national experts working on the project. The same was done in agreement and collaboration with the Ministry of Environment.

The Ministry of Environment led the implementation of the project nationally while the execution was assured by regional Directions of the Ministry in close cooperation with the other project partners.

A coordination committee was formed. The mandate of the committee was to oversee the implementation and ensure execution of the project, ensure coordination with other initiatives and to provide feedback to UNIDO on aspects related to project implementation.



The committee consisted of representatives from the:

- Ministry of Environment and Sustainable Development
- GIZ
- IRSAT
- NDGO's and CSOs
- ECREEE
- UNIDO

The project management unit was responsible for the day to day operation of the project on the ground, and it was constituted by the national project coordinator. Further expertise required was hired through the technical assistance components to ensure that the technical aspects of the project are addressed.

## 1. Budget Information

The total budget of the project (including support costs) is US\$1,160,000 with the co-funding of US\$730,000 coming from the African Export Import Bank, UNIDO and the Ministry of Environment. The total budget provided by the GEF to UNIDO to implement the project was US\$430,000, excluding agency support cost of US\$43,000. Until now, **76.1** percent of the GEF-funded budget has been committed and/or spent.

Overall cost and financing (including co-financing):

According to the project document, 37% of the total project budget originated from the GEF grant, whereas 63% from co-financing. For the project component 1 – Technology deployment and demonstration, 68% from the co-financing and 32 percent from the GEF financing budget should have been spent for this component. For the project component 2 – Stimulating the market demand for improved cook stoves should have been spent 40 percent of the GEF grant, and 60% of the co-financing means. Finally, for the project component 3 – Scaling up through the voluntary carbon market should have been spent 50% of the GEF grant, and only 50% from the co-financing funds, as it can be seen on the table below.

Project Components	GEF Financing (US\$)	GEF Financing (%)	Co-financing (US\$)	Co-financing (%)	Total Financing (US\$)
1. Technology deployment and demonstration	90,000	32	280,000	68	<b>370,000</b>
2. Stimulating the market demand for improved cook stoves	200,000	40	300,000	60	<b>500,000</b>
3. Scaling up through the voluntary carbon market	80,000	50	80,000	50	<b>160,000</b>
4. M&E - Final evaluation	15,000	50	15,000	50	<b>30,000</b>
5. Project management	45,000	45	55,000	55	<b>100,000</b>
<b>Total project costs (US\$)</b>	<b>430,000</b>	<b>37</b>	<b>730,000</b>	<b>63</b>	<b>1,160,000</b>

Source: Project document

## b) UNIDO budget execution (GEF funding excluding agency support cost):

According to the table shown below, until now, 76% of the total GEF grant of US\$340,000 has been spent. More detailed, from the planned budget per budget line were spent so far: 100% for hiring international consultants, 86% for travel of project staff, 79% for consultants, 79 percent for subcontractors, 86% for equipment, and 40% for sundries.

Budget Line	Items	Budget (USD)	2012		2013		2014		Total (USD)		
			Commitments (USD)	Disbursed (USD)	Commitments (USD)	Disbursed (USD)	Commitments (USD)	Disbursed (USD)	Commitments (USD)	Disbursed (USD)	Expenditure (USD)
11	International Consultants	43,259		16,541	0	19,426	7,168		7,168	35,967	43,134
15	Travel of project staff	21,574	2,316	3,762	4,326	8,091	-22		6,620	11,853	18,473
16	Other personnel costs	142				142			0	142	142
17	Consultants	107,149		3,439	16	45,089	35,732		35,748	48,528	84,276
21	Subcontractors	190,672	108,975	24	-14,148	54,821	-47,801	48,844	47,026	103,688	150,714
30	???	42,229			0	8,314		8,562	0	16,877	16,877
45	Equipment	7,672	4,632		-4,575	4,615	2,000		2,057	4,615	6,672
51	Sundries	17,304	880	332	-715	4,243	2,239	10	2,404	4,584	6,988
<b>Total (USD)</b>		<b>430,000</b>	<b>116,803</b>	<b>24,098</b>	<b>-15,097</b>	<b>144,740</b>	<b>-684</b>	<b>57,416</b>	<b>101,022</b>	<b>226,254</b>	<b>327,276</b>

Source: SAP database (Stand 03.04.2014), UNIDO Project Manager

### Scope and purpose of the evaluation

The terminal evaluation will cover the whole duration of the project from its starting date in April 2012 to the estimated completion date in December 2014. It will assess project performance against the evaluation criteria: relevance, effectiveness, efficiency, sustainability and impact.

The terminal evaluation has an additional purpose of drawing lessons and developing recommendations for UNIDO and the GEF that may help for improving the selection, enhancing the design and implementation of similar future projects and activities in the country and on a global scale upon project completion. The terminal evaluation report should include examples of good practices for other projects in a focal area, country, or region. **Particularly being the first pilot project for promoting fuel efficient cook stoves in the beer brewing industry in Africa, a special attention should be paid on the lessons learned for project replications in other regions of Africa.**

The evaluation team should provide an analysis of the attainment of the main objective and specific objectives under the three core project components. Through its assessments, the evaluation team should enable the Government, counterparts, the GEF, UNIDO and other stakeholders and donors to verify prospects for development impact and sustainability, providing an analysis of the attainment of global environmental objectives, project objectives, delivery and completion of project outputs/activities, and outcomes/impacts based on indicators. The assessment includes re-examination of the relevance of the objectives and other elements of project design according to the project evaluation parameters defined in chapter VI.

**The key question of the terminal evaluation is whether the project has achieved or is likely to achieve the project objective, i.e. if the project has promoted fuel efficient cook stoves in the beer brewery sector in Burkina Faso.**

## Evaluation approach and methodology

The terminal evaluation will be conducted in accordance with the UNIDO Evaluation Policy, the UNIDO Guidelines for the Technical Cooperation Programmes and Projects, the GEF's 2008 Guidelines for Implementing and Executing Agencies to Conduct Terminal Evaluations, the GEF Monitoring and Evaluation Policy from 2010 and the Recommended Minimum Fiduciary Standards for GEF Implementing and Executing Agencies.

It will be carried out as an independent in-depth evaluation using a participatory approach whereby all key parties associated with the project are kept informed and regularly consulted throughout the evaluation. The evaluation team leader will liaise with the UNIDO Office for Independent Evaluation (EVA) on the conduct of the evaluation and methodological issues.

The evaluation team will be required to use different methods to ensure that data gathering and analysis deliver evidence-based qualitative and quantitative information, based on diverse sources: desk studies and literature review, statistical analysis, individual interviews, focus group meetings, surveys and direct observation. This approach will not only enable the evaluation team to assess causality through quantitative means but also to provide reasons for why certain results were achieved or not and to triangulate information for higher reliability of findings. The concrete mixed methodological approach will be described in the inception report.

The evaluation team will develop interview guidelines. Field interviews can take place either in the form of focus-group discussions or one-to-one consultations.

The methodology will be based on the following:

A desk review of project documents including, but not limited to:

The original project document, monitoring reports (such as progress and financial reports to UNIDO and GEF annual Project Implementation Review (PIR) reports), GEF Tracking Tool, Diagnostical Cluster Study: Promotion de foyers énergétiquement efficaces dans la brasserie traditionnelle dans Burkina Faso, output reports (case studies, action plans, sub-regional strategies, etc.) and relevant correspondence.

Notes from the meetings of committees involved in the project (e.g., approvals by steering committees' meetings).

Other project-related material produced by the project.

Since the project document contains a project results framework (included in annex 8 of the ToR), the evaluation team will assess performance against this framework. The validity of the theory of change will be re-examined through specific questions in the interviews and, possibly, through a survey of the following stakeholders and co-financers: *Institut de Recherche en Sciences Appliquées et Technologies (IRSAT)*, Ministry of Environment and Sustainable Development, and African Export Import Bank (Afreximbank).

Counter-factual information: Baseline and background information for the benchmarks exist for this project.

Interviews with project management and technical support including staff and management at UNIDO HQ and – if necessary - staff associated with the project's financial administration and procurement.

Interviews with project partners, including government counterparts from Burkina Faso, GEF focal points, and partners that have been selected for co-financing as shown in the corresponding sections of the project documents.

On-site observation of results achieved in demonstration projects, including interviews of actual and potential beneficiaries of improved technologies.

Interviews and telephone interviews with intended users for the project outputs and other stakeholders involved with this project. The evaluator shall determine whether to seek additional information and opinions from representatives of any donor agencies or other organizations.

Interviews with the Project Steering Committee (PSC) members and the various national and sub-regional authorities dealing with project activities as necessary. If deemed necessary, the evaluator shall also gain broader perspectives from discussions with relevant GEF Secretariat staff.

Other interviews, surveys or document reviews as deemed necessary by the evaluator and/or UNIDO EVA.

The inception report will provide details on the methodology used by the evaluation team and include an evaluation matrix.

### **Evaluation team composition**

The evaluation team will be composed of one international evaluation consultant acting as a team leader and one national evaluation consultant.

The evaluation team should be able to provide information relevant for follow-up studies, including evaluation verification on request to the GEF partnership up to two years after completion of the evaluation.

Both consultants will be contracted by UNIDO. The tasks of each team member are specified in the job descriptions attached to these terms of reference.

Members of the evaluation team must not have been directly involved in the design and/or implementation of the programme/projects.

The project manager at UNIDO and the project team in Burkina Faso will support the evaluation team. The UNIDO GEF Coordinator will be briefed on the evaluation and equally provide support to its conduct.

### **Time schedule and deliverables**

The evaluation is scheduled to take place in the period from November 2014 to December 2014. The evaluation field mission is planned for November 2014. At the end of the evaluation field mission, there will be a presentation of the preliminary findings for all stakeholders involved in this project in Burkina Faso.

After the evaluation field mission, the evaluation team leader will come to UNIDO HQ for debriefing and presentation of the preliminary findings of the Terminal Evaluation. The draft Terminal evaluation report will be submitted 4 to 6 weeks after the end of the mission.

### **Project evaluation parameters**

The evaluation team will rate the projects. The ***ratings for the parameters described in the following sub-chapters A to J will be presented in the form of a table*** with each of the categories rated separately and with **brief justifications for the rating** based on the findings of the main analysis. An overall rating for the project should also be given. The rating system to be applied is specified in annexes 1 and 2.

#### **A. Project design**

The evaluation will examine the extent to which:

- ✓ The project's design is adequate to address the problems at hand;
- ✓ A participatory project identification process was instrumental in selecting problem areas and national counterparts;
- ✓ The project has a clear thematically focused development objective, the attainment of which can be determined by a set of verifiable indicators;
- ✓ The project was formulated based on the logical framework (project results framework) approach;
- ✓ The project was formulated with the participation of national counterpart and/or target beneficiaries; and
- ✓ Relevant country representatives (from government, industries and civil society) have been appropriately involved and were participating in the identification of critical problem areas and the development of technical cooperation strategies.

#### **B. Project relevance**

The evaluation will examine the extent to which the project is relevant to the:

- ✓ National development and environmental priorities and strategies of the Government and population of Republic of Moldova, and regional and international agreements. See possible evaluation questions under "Country ownership/driveness" below.
- ✓ Target groups: relevance of the project's objectives, outcomes and outputs to the different target groups of the interventions (e.g. companies, civil society, beneficiaries of capacity building and training, etc.).
- ✓ GEF's focal areas/operational programme strategies: In retrospect, were the project's outcomes consistent with the focal areas/operational program strategies for climate change, more specifically promoting energy efficiency in the industrial sector of GEF? Ascertain the likely nature and significance of the contribution of the project outcomes to the wider portfolio of GEF's Strategic Program 2: Promoting industrial energy efficiency.

- ✓ UNIDO's thematic priorities: Were they in line with UNIDO's mandate, objectives and outcomes defined in the Programme and Budget and core competencies?
- ✓ Does the project remain relevant taking into account the changing environment? Is there a need to reformulate the project design and the project results framework given changes in the country and operational context?

### **C. Effectiveness: Objectives and planned final results at the end of the project**

- The evaluation will assess to what extent results at various levels, including outcomes, have been achieved. In detail, the following issues will be assessed: To what extent have the expected outputs, outcomes and long-term objectives been achieved or are likely to be achieved? Has the project generated any results that could lead to changes of the assisted institutions? Have there been any unplanned effects?
- Are the project outcomes commensurate with the original or modified project objectives? If the original or modified expected results are merely outputs/inputs, the evaluators should assess if there were any real outcomes of the project and, if there were, determine whether these are commensurate with realistic expectations from the project.
- How do the stakeholders perceive the quality of outputs? Were the targeted beneficiary groups actually reached?
- What outputs and outcomes has the project achieved so far (both qualitative and quantitative results)? Has the project generated any results that could lead to changes of the assisted institutions? Have there been any unplanned effects?
- Identify actual and/or potential longer-term impacts or at least indicate the steps taken to assess these (see also below "monitoring of long term changes"). Wherever possible, evaluators should indicate how findings on impacts will be reported in future.
- Describe any catalytic or replication effects: the evaluation will describe any catalytic or replication effect both within and outside the project. If no effects are identified, the evaluation will describe the catalytic or replication actions that the project carried out. No ratings are requested for the project's catalytic role.

### **D. Efficiency**

The extent to which:

- The project cost was effective? Was the project using the least cost options?
- Has the project produced results (outputs and outcomes) within the expected time frame? Was project implementation delayed, and, if it was, did that affect cost effectiveness or results? Wherever possible, the evaluator should also compare the costs incurred and the time taken to achieve outcomes with that for similar projects. Are the project's activities in line with the schedule of

activities as defined by the project team and annual work plans? Are the disbursements and project expenditures in line with budgets?

- Have the inputs from the donor, UNIDO and Government/counterpart been provided as planned, and were they adequate to meet requirements? Was the quality of UNIDO inputs and services as planned and timely?
- Was there coordination with other UNIDO and other donors' projects, and did possible synergy effects happen?

#### **E. Assessment of sustainability of project outcomes**

Sustainability is understood as the likelihood of continued benefits after the GEF project ends. Assessment of sustainability of outcomes will be given special attention but also technical, financial and organization sustainability will be reviewed. This assessment should explain how the risks to project outcomes will affect continuation of benefits after the GEF project ends. It will include both exogenous and endogenous risks. The following four dimensions or aspects of risks to sustainability will be addressed:

- ✓ **Financial risks.** Are there any financial risks that may jeopardize sustainability of project outcomes? What is the likelihood of financial and economic resources not being available once GEF assistance ends? (Such resources can be from multiple sources, such as the public and private sectors or income-generating activities; these can also include trends that indicate the likelihood that, in future, there will be adequate financial resources for sustaining project outcomes.) Was the project successful in identifying and leveraging co-financing?
- ✓ **Sociopolitical risks.** Are there any social or political risks that may jeopardize sustainability of project outcomes? What is the risk that the level of stakeholder ownership (including ownership by governments and other key stakeholders) will be insufficient to allow for the project outcomes/benefits to be sustained? Do the various key stakeholders see that it is in their interest that project benefits continue to flow? Is there sufficient public/stakeholder awareness in support of the project's long-term objectives?
- ✓ **Institutional framework and governance risks.** Do the legal frameworks, policies, and governance structures and processes within which the project operates pose risks that may jeopardize sustainability of project benefits? Are requisite systems for accountability and transparency, and required technical know-how, in place?
- ✓ **Environmental risks.** Are there any environmental risks that may jeopardize sustainability of project outcomes? Are there any environmental factors, positive or negative, that can influence the future flow of project benefits? Are there any project outputs or higher level results that are likely to affect the environment, which, in turn, might affect sustainability of project benefits? The evaluation should assess whether certain activities will pose a threat to the sustainability of the project outcomes.

#### **F. Assessment of monitoring and evaluation systems**

- **M&E design.** Did the project have an M&E plan to monitor results and track progress towards achieving project objectives? The Evaluation will assess

whether the project met the minimum requirements for the application of the Project M&E plan (see Annex 3).

- **M&E plan implementation.** The evaluation should verify that an M&E system was in place and facilitated timely tracking of progress toward project objectives by collecting information on chosen indicators continually throughout the project implementation period; annual project reports were complete and accurate, with well-justified ratings; the information provided by the M&E system was used during the project to improve performance and to adapt to changing needs; and the project had an M&E system in place with proper training for parties responsible for M&E activities to ensure that data will continue to be collected and used after project closure. Were monitoring and self-evaluation carried out effectively, based on indicators for outputs, outcomes and impacts? Are there any annual work plans? Was any steering or advisory mechanism put in place? Did reporting and performance reviews take place regularly?
- **Budgeting and funding for M&E activities.** In addition to incorporating information on funding for M&E while assessing M&E design, the evaluators will determine whether M&E was sufficiently budgeted for at the project planning stage and whether M&E was adequately funded and in a timely manner during implementation.

#### **G. Monitoring of long-term changes**

The monitoring and evaluation of long-term changes is often incorporated in GEF-supported projects as a separate component and may include determination of environmental baselines; specification of indicators; and provisioning of equipment and capacity building for data gathering, analysis, and use. This section of the evaluation report will describe project actions and accomplishments toward establishing a long-term monitoring system. The review will address the following questions:

- a. Did this project contribute to the establishment of a long-term monitoring system? If it did not, should the project have included such a component?
- b. What were the accomplishments and shortcomings in establishment of this system?
- c. Is the system sustainable—that is, is it embedded in a proper institutional structure and does it have financing? How likely is it that this system continues operating upon project completion?
- d. Is the information generated by this system being used as originally intended?

#### **H. Assessment of processes affecting achievement of project results**

Among other factors, when relevant, the evaluation will consider a number of issues affecting project implementation and attainment of project results. The assessment of these issues can be integrated into the analyses of project design, relevance, effectiveness, efficiency, sustainability and management as the evaluators find them fit (it is not necessary, however it is possible to have a separate chapter on these aspects in the evaluation report). The evaluation will



consider, but need not be limited to, the following issues that may have affected project implementation and achievement of project results:

- a. **Preparation and readiness / Quality at entry.** Were the project's objectives and components clear, practicable, and feasible within its time frame? Were counterpart resources (funding, staff, and facilities), and adequate project management arrangements in place at project entry? Were the capacities of executing institution and counterparts properly considered when the project was designed? Were lessons from other relevant projects properly incorporated in the project design? Were the partnership arrangements properly identified and the roles and responsibilities negotiated prior to project approval?
- b. **Country ownership/drivenness.** Was the project concept in line with the sectoral and development priorities and plans of the country—or of participating countries, in the case of multi-country projects? Are project outcomes contributing to national development priorities and plans? Were the relevant country representatives from government and civil society involved in the project? Did the recipient government maintain its financial commitment to the project? Has the government—or governments in the case of multi-country projects—approved policies or regulatory frameworks in line with the project's objectives?
- c. **Stakeholder involvement.** Did the project involve the relevant stakeholders through information sharing and consultation? Did the project implement appropriate outreach and public awareness campaigns? Were the relevant vulnerable groups and powerful supporters and opponents of the processes properly involved? Which stakeholders were involved in the project (i.e., NGOs, private sector, other UN agencies etc.) and what were their immediate tasks? Did the project consult with and make use of the skills, experience, and knowledge of the appropriate government entities, nongovernmental organizations, community groups, private sector entities, local governments, and academic institutions in the design, implementation, and evaluation of project activities? Were perspectives of those who would be affected by project decisions, those who could affect the outcomes, and those who could contribute information or other resources to the process taken into account while taking decisions? Were the relevant vulnerable groups and the powerful, the supporters and the opponents, of the processes properly involved?
- d. **Financial planning.** Did the project have appropriate financial controls, including reporting and planning, that allowed management to make informed decisions regarding the budget and allowed for timely flow of funds? Was there due diligence in the management of funds and financial audits? Did promised co-financing materialize? Specifically, the evaluation should also include a breakdown of final actual project costs by activities compared to budget (variances), financial management (including disbursement issues), and co-financing.
- e. **UNIDO's supervision and backstopping.** Did UNIDO staff identify problems in a timely fashion and accurately estimate their seriousness? Did UNIDO staff provide quality support and advice to the project, approve modifications in time, and restructure the project when needed? Did UNIDO provide the right staffing levels, continuity, skill mix, and frequency of field visits for the project?

- f. **Co-financing and project outcomes and sustainability.** If there was a difference in the level of expected co-financing and the co-financing actually realized, what were the reasons for the variance? Did the extent of materialization of co-financing affect project outcomes and/or sustainability, and, if so, in what ways and through what causal linkages?
- g. **Delays and project outcomes and sustainability.** If there were delays in project implementation and completion, what were the reasons? Did the delays affect project outcomes and/or sustainability, and, if so, in what ways and through what causal linkages?
- h. **Implementation approach<sup>27</sup>.** Is the implementation approach chosen different from other implementation approaches applied by UNIDO and other agencies? Does the approach comply with the principles of the Paris Declaration? Does the approach promote local ownership and capacity building? Does the approach involve significant risks?

The evaluation team will rate the project performance as required by the GEF. The ratings will be given to four criteria: Project Results, Sustainability, Monitoring and Evaluation, and UNIDO related issues as specified in Annex 2. The ratings will be presented in a table with each of the categories rated separately and with brief justifications for the rating based on the findings of the main analysis. An overall rating for the project should also be given. The rating system to be applied is specified in the same annex. As per the GEF's requirements, the report should also provide information on project identification, time frame, actual expenditures, and co-financing in the format in Annex 5, which is modeled after the GEF's project identification form (PIF).

## I. Project coordination and management

The extent to which:

- The national management and overall coordination mechanisms have been efficient and effective? Did each partner have assigned roles and responsibilities from the beginning? Did each partner fulfil its role and responsibilities (e.g. providing strategic support, monitoring and reviewing performance, allocating funds, providing technical support, following up agreed/corrective actions)?
- The UNIDO HQ and Field Office based management, coordination, monitoring, quality control and technical inputs have been efficient, timely and effective (e.g., problems identified timely and accurately; quality support provided timely and effectively; right staffing levels, continuity, skill mix and frequency of field visits)?
- The national management and overall coordination mechanisms were efficient and effective? Did each partner have specific roles and responsibilities from the beginning till the end? Did each partner fulfill its role and responsibilities (e.g. providing strategic support, monitoring and reviewing performance, allocating

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<sup>27</sup> Implementation approach refers to the concrete manifestation of cooperation between UNIDO, Government counterparts and local implementing partners. Usually POPs projects apply a combination of agency execution (direct provision of services by UNIDO) with elements of national execution through sub-contracts.

funds, providing technical support, following up agreed/corrective actions)? Were the UNIDO HQ based management, coordination, quality control and technical inputs efficient, timely and effective (e.g., problems identified timely and accurately; quality support provided timely and effectively; right staffing levels, continuity, skill mix and frequency of field visits)?

## **J. Assessment of gender mainstreaming**

The evaluation will consider, but need not be limited to, the following issues that may have affected gender mainstreaming in the project:

- To which extent were socioeconomic benefits delivered by the project at the national and local levels, including consideration of gender dimensions?

## **Reporting**

### **Inception report**

This Terms of Reference provides some information on the evaluation methodology but this should not be regarded as exhaustive. After reviewing the project documentation and initial interviews with the project manager the International Evaluation Consultant will prepare, in collaboration with the national consultant, a short inception report that will operationalize the ToR relating to the evaluation questions and provide information on what type of and how the evidence will be collected (methodology). It will be discussed with and approved by the responsible UNIDO Evaluation Officer. The Inception Report will focus on the following elements: preliminary project theory model(s); elaboration of evaluation methodology including quantitative and qualitative approaches through an evaluation framework (“evaluation matrix”); division of work between the International Evaluation Consultant and National Consultant; mission plan, including places to be visited, people to be interviewed and possible surveys to be conducted and a debriefing and reporting timetable<sup>28</sup>.

### **Evaluation report format and review procedures**

The draft report will be delivered to UNIDO EVA (the suggested report outline is in Annex 1) and circulated to UNIDO staff and national stakeholders associated with the project for factual validation and comments. Any comments or responses, or feedback on any errors of fact to the draft report provided by the stakeholders will be sent to UNIDO EVA for collation and onward transmission to the project evaluation team who will be advised of any necessary revisions. On the basis of this feedback, and taking into consideration the comments received, the evaluation team will prepare the final version of the terminal evaluation report.

The evaluation team will present its preliminary findings to the local stakeholders at the end of the field visit and take into account their feed-back in preparing the evaluation report. A presentation of preliminary findings will take place in Burkina Faso and at HQ after the field mission.

The terminal evaluation report should be brief, to the point and easy to understand. It must explain the purpose of the evaluation, exactly what was evaluated, and the methods used. The report must highlight any methodological limitations, identify key

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<sup>28</sup> The evaluator will be provided with a Guide on how to prepare an evaluation inception report prepared by the UNIDO Office for Independent Evaluation.

concerns and present evidence-based findings, consequent conclusions, recommendations and lessons. The report should provide information on when the evaluation took place, the places visited, who was involved and be presented in a way that makes the information accessible and comprehensible. The report should include an executive summary that encapsulates the essence of the information contained in the report to facilitate dissemination and distillation of lessons.

Findings, conclusions and recommendations should be presented in a complete, logical and balanced manner. The evaluation report shall be written in English and follow the outline given in annex 1.

### **Evaluation work plan**

The evaluation work plan includes the following main products:

1. Desk review, briefing by project manager and development of methodology: Following the receipt of all relevant documents, and consultation with the Project Manager about the documentation, including reaching an agreement on the Methodology, the desk review could be completed.
2. Inception report: At the time for departure to the field mission, the complete gamete of received materials have been reviewed and consolidated into the Inception report.
3. Field mission: The principal responsibility for managing this evaluation lies with UNIDO. It will be responsible for liaising with the project team to set up the stakeholder interviews, arrange the field missions, coordinate with the Government. At the end of the field mission, there will be a presentation of preliminary findings to the key stakeholders in the country where the project was implemented.
4. Preliminary findings from the field mission: Following the field mission, the main findings, conclusions and recommendations would be prepared and presented in the field and at UNIDO Headquarters.
5. A draft terminal evaluation report will be forwarded electronically to the the UNIDO Office for Independent Evaluation and circulated to main stakeholders.
6. Final terminal evaluation report will incorporate comments received.

Evaluation phases	Deliverables
Desk review	Development of methodology approach and evaluation tools
Briefing with UNIDO Office for Independent Evaluation, Project Managers and other key stakeholder at HQ	Interview notes, detailed evaluation schedule and list of stakeholders to interview during field mission
Data analysis	Inception Evaluation Report
Field mission Present preliminary findings and recommendations to key stakeholders in the field	Presentation of main findings to key stakeholders in Burkina Faso
Present preliminary findings and recommendations to the stakeholders at UNIDO HQ	Presentation slides
Analysis of the data collected	Draft Terminal Evaluation Report
Circulation of the draft report to UNIDO/relevant stakeholders and revision	Final Terminal Evaluation Report

### Quality assurance

All UNIDO evaluations are subject to quality assessments by the UNIDO Office for Independent Evaluation. Quality assurance and control is exercised in different ways throughout the evaluation process (briefing of consultants on methodology and process of the UNIDO Office for Independent Evaluation, providing inputs regarding findings, lessons learned and recommendations from other UNIDO evaluations, review of inception report and evaluation report by the UNIDO Office for Independent Evaluation). The quality of the evaluation report will be assessed and rated against the criteria set forth in the Checklist on evaluation report quality, attached as annex 4. The applied evaluation quality assessment criteria are used as a tool to provide structured feedback. The UNIDO Office for Independent Evaluation should ensure that the evaluation report is useful for UNIDO in terms of organizational learning (recommendations and lessons learned) and is compliant with UNIDO's evaluation policy and these terms of reference. The draft and final evaluation report are reviewed by the UNIDO Office for Independent Evaluation, which will submit the final report to the GEF Evaluation Office and circulate it within UNIDO together with a management response sheet.

## Annex 1 - Outline of an in-depth project evaluation report

### Executive summary

- Must provide a synopsis of the storyline which includes the main evaluation findings and recommendations
- Must present strengths and weaknesses of the project
- Must be self-explanatory and should be 3-4 pages in length

### I. Evaluation objectives, methodology and process

- Information on the evaluation: why, when, by whom, etc.
- Scope and objectives of the evaluation, main questions to be addressed
- Information sources and availability of information
- Methodological remarks, limitations encountered and validity of the findings

### II. Countries and project background

- Brief countries context: an overview of the economy, the environment, institutional development, demographic and other data of relevance to the project
- Sector-specific issues of concern to the project<sup>29</sup> and important developments during the project implementation period
- Project summary:
  - Fact sheet of the project: including project objectives and structure, donors and counterparts, project timing and duration, project costs and co-financing
  - Brief description including history and previous cooperation
  - Project implementation arrangements and implementation modalities, institutions involved, major changes to project implementation
  - Positioning of the UNIDO project (other initiatives of government, other donors, private sector, etc.)
  - Counterpart organization(s)

### III. Project assessment

This is the key chapter of the report and should address all evaluation criteria and questions outlined in the TOR (see section VI Project Evaluation Parameters). Assessment must be based on factual evidence collected and analyzed from different sources. The evaluators' assessment can be broken into the following sections:

- A. Design
- B. Relevance (report on the relevance of project towards countries and beneficiaries)
- C. Effectiveness (the extent to which the development intervention's objectives and deliverables were achieved, or are expected to be achieved, taking into account their relative importance)

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<sup>29</sup> Explicit and implicit assumptions in the logical framework of the project can provide insights into key-issues of concern (e.g. relevant legislation, enforcement capacities, government initiatives, etc.)

- D. Efficiency (report on the overall cost-benefit of the project and partner Countries contribution to the achievement of project objectives)
- E. Sustainability of Project Outcomes (report on the risks and vulnerability of the project, considering the likely effects of sociopolitical and institutional changes in partner countries, and its impact on continuation of benefits after the GEF project ends, specifically the financial, sociopolitical, institutional framework and governance, and environmental risks)
- F. Assessment of monitoring and evaluation systems (report on M&E design, M&E plan implementation, and Budgeting and funding for M&E activities)
- G. Monitoring of long-term changes
- H. Assessment of processes affecting achievement of project results (report on preparation and readiness/quality at entry, country ownership, stakeholder involvement, financial planning, UNIDO support, co-financing and project outcomes and sustainability, delays of project outcomes and sustainability, and implementation approach)
- I. Project coordination and management (report project management conditions and achievements, and partner countries commitment)
- J. Gender mainstreaming

At the end of this chapter, an overall project achievement rating should be developed as required in annex 2. The overall rating table required by the GEF should be presented here.

#### **IV. Conclusions, recommendations and lessons learned**

This chapter can be divided into three sections:

##### **A. Conclusions**

This section should include a storyline of the main evaluation conclusions related to the project's achievements and shortfalls. It is important to avoid providing a summary based on each and every evaluation criterion. The main conclusions should be cross-referenced to relevant sections of the evaluation report.

## B. Recommendations

This section should be succinct and contain few key recommendations. They should be:

- Based on evaluation findings
- Realistic and feasible within a project context
- Indicate institution(s) responsible for implementation (addressed to a specific officer, group or entity who can act on it) and have a proposed timeline for implementation if possible
- Commensurate with the available capacities of project team and partners
- Taking into account resource requirements

Recommendations should be structured by addressees:

- UNIDO
- Government and/or counterpart organizations
- Donor

## C. Lessons learned

- Lessons learned must be of wider applicability beyond the evaluated project but must be based on findings and conclusions of the evaluation
- For each lesson the context from which they are derived should be briefly stated

**Annexes** should include the evaluation TOR, list of interviewees, documents reviewed, a summary of project identification and financial data, and other detailed quantitative information. Dissident views or management responses to the evaluation findings may later be appended in an annex.



## Annex 2. Overall ratings table

Criterion	Evaluator's summary comments	Evaluator's rating
<b>Attainment of project objectives and results (overall rating)</b> <b>Sub criteria (below)</b>		
Effectiveness		
Relevance		
Efficiency		
<b>Sustainability of project outcomes (overall rating)</b> <b>Sub criteria (below)</b>		
Financial risks		
Sociopolitical risks		
Institutional framework and governance risks		
Environmental risks		
<b>Monitoring and evaluation (overall rating)</b> <b>Sub criteria (below)</b>		
M&E Design		
M&E Plan Implementation (use for adaptive management)		
Budgeting and Funding for M&E activities		
<b>UNIDO specific ratings</b>		
Quality at entry / Preparation and readiness		
Implementation approach		
UNIDO supervision and backstopping		
<b>Overall rating</b>		

### RATING OF PROJECT OBJECTIVES AND RESULTS

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

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

## RATINGS ON SUSTAINABILITY

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

### Rating system for sustainability sub-criteria

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

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

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

## RATINGS OF PROJECT M&E

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

The project monitoring and evaluation system will be rated on *M&E design*, *M&E plan implementation* and *Budgeting and funding for M&E activities* as follows:

- **Highly satisfactory (HS):** There were no shortcomings in the project M&E system.
- **Satisfactory (S):** There were minor shortcomings in the project M&E system.
- **Moderately satisfactory (MS):** There were moderate shortcomings in the project M&E system.

- **Moderately unsatisfactory** (MU): There were significant shortcomings in the project M&E system.
- **Unsatisfactory** (U): There were major shortcomings in the project M&E system.
- **Highly unsatisfactory** (HU): The project had no M&E system.

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

All other ratings will be on the GEF six-point scale:

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

## **Annex 3. GEF minimum requirements for M&E<sup>30</sup>**

### **Minimum requirement 1: Project design of M&E**

All projects will include a concrete and fully budgeted monitoring and evaluation plan by the time of work program entry for full-sized projects and CEO approval for medium-sized projects. This monitoring and evaluation plan will contain as a minimum:

- SMART indicators for project implementation, or, if no indicators are identified, an alternative plan for monitoring that will deliver reliable and valid information to management;
- SMART indicators for results (outcomes and, if applicable, impacts), and, where appropriate, indicators identified at the corporate level;
- Baseline for the project, with a description of the problem to be addressed, with indicator data, or, if major baseline indicators are not identified, an alternative plan for addressing this within one year of implementation;
- Identification of reviews and evaluations that will be undertaken, such as mid-term reviews or evaluations of activities; and
- Organizational set-up and budgets for monitoring and evaluation.

### **Minimum requirement 2: Application of project M&E**

Project monitoring and supervision will include implementation of the M&E plan, comprising:

- SMART indicators for implementation are actively used, or if not, a reasonable explanation is provided;
- SMART indicators for results are actively used, or if not, a reasonable explanation is provided;
- Baseline for the project is fully established and data compiled to review progress reviews, and evaluations are undertaken as planned; and
- Organizational set-up for M&E is operational and budgets are spent as planned.

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<sup>30</sup> [http://www.thegef.org/gef/sites/thegef.org/files/documents/ME\\_Policy\\_2010.pdf](http://www.thegef.org/gef/sites/thegef.org/files/documents/ME_Policy_2010.pdf)

## Annex 4. Checklist on evaluation report quality

### Independent terminal evaluation of UNIDO-GEF project

Project title:

Project number:

Checklist on evaluation report quality

Report quality criteria	UNIDO Office for Independent Evaluation: Assessment notes	Rating
A. The terminal evaluation report presented an assessment of all relevant outcomes and achievement of project objectives in the context of the focal area program indicators if applicable.		
B. The terminal evaluation report was consistent, the evidence presented was complete and convincing, and the ratings were well substantiated.		
C. The terminal evaluation report presented a sound assessment of sustainability of outcomes.		
D. The lessons and recommendations listed in the terminal evaluation report are supported by the evidence presented and are relevant to the GEF portfolio and future projects.		
E. The terminal evaluation report included the actual project costs (totals, per activity, and per source) and actual co-financing used.		
F. The terminal evaluation report included an assessment of the quality of the M&E plan at entry, the operation of the M&E system used during implementation, and the extent M&E was sufficiently budgeted for during preparation and properly funded during implementation.		

Rating system for quality of evaluation reports

A number rating 1-6 is used for each criterion: Highly satisfactory = 6, Satisfactory = 5, Moderately satisfactory = 4, Moderately unsatisfactory = 3, Unsatisfactory = 2, Highly unsatisfactory = 1, and unable to assess = 0

## Annex 5 – Required project identification and financial data

The evaluation report should provide information on project identification, time frame, actual expenditures, and co-financing in the following format, which is modeled after the project identification form (PIF).

### I. Project general information:

<b>Project title</b>	
<b>GEF ID Number</b>	
<b>UNIDO ID (SAP Number)</b>	
<b>Region</b>	
<b>Country(ies)</b>	
<b>GEF Focal area and operational program:</b>	
<b>Co-implementing agency(ies)</b>	
<b>GEF agencies (Implementing Agency)</b>	
<b>Project executing partners</b>	
<b>Project size (FSP, MSP, EA)</b>	
<b>Project CEO Endorsement / Approval date</b>	
<b>Project implementation start Date (PAD Issuance Date)</b>	
<b>Original expected implementation end date (indicated in CEO Endorsement/Approval document)</b>	
<b>Revised expected implementation end date (if any)</b>	
<b>Project duration (Months)</b>	
<b>GEF Grant (US\$)</b>	
<b>GEF PPG (US\$) (if any)</b>	
<b>Co-financing (US\$) at CEO Endorsement</b>	
<b>Total project cost (US\$) (GEF Grant + Co-financing at CEO Endorsement)</b>	
<b>Agency fee (US\$)</b>	

## II. Dates

Milestone	Expected date	Actual date
Project CEO Endorsement/Approval date		
Project implementation start date (PAD issuance date)		
Original expected implementation end date (indicated in CEO Endorsement/Approval document)		
Revised expected implementation end date (if any)		
Terminal evaluation completion		
Planned tracking tool date		

## III. Project framework

Project component	Activity type	GEF financing (in US\$)		Co-financing (in US\$)	
		Approved	Actual	Promised	Actual
1.					
2.					
3.					
4.					
5.					
6. Project management					
Total					

Activity types are:

- a) Experts, researches hired
- b) technical assistance, Workshop, Meetings or experts consultation scientific and technical analysis, experts researches hired
- c) Promised co-financing refers to the amount indicated on endorsement/approval.

#### IV. Co-financing

Source of co-financing	Type	Project preparation		Project implementation		Total	
		Expected	Actual	Expected	Actual	Expected	Actual
Host gov't contribution							
GEF Agency (ies)							
Bilateral aid agency(ies)							
Multilateral agency(ies)							
Private sector							
NGO							
Other							
<b>Total co-financing</b>							

Expected amounts are those submitted by the GEF Agencies in the original project appraisal document. Co-financing types are grant, soft loan, hard loan, guarantee, in kind, or cash.



## Annex 6 – Job descriptions

### Job description

<b>Post title</b>	International evaluation consultant
<b>Duration</b>	30 days over a period of 2 months
<b>Started date</b>	November 2014 to December 2014
<b>Duty station</b>	Home based and travel to Vienna and Burkina Faso

### Duties

The consultant will evaluate the projects according to the terms of reference. S/he will act as leader of the evaluation team and will be responsible for preparing the draft and final evaluation report, according to the standards of the UNIDO Office for Independent Evaluation. S/he will perform the following tasks:

Main duties	Duration/ location	Deliverables
Review project documentation and relevant country background information (e.g., national policies and strategies, UN strategies and general economic data); determine key data to collect in the field and prepare key instruments (e.g., questionnaires, logic models) to collect these data through interviews and/or surveys during and prior to the field missions Assess the adequacy of Burkina Faso's legislative and regulatory framework for industrial energy efficiency.	6 days Home-based	Draft inception report, including list of detailed evaluation questions; questionnaires/ interview guidelines; logic models; list of key data to collect, draft list of stakeholders to interview during the field missions Brief assessment of the adequacy of the country's legislative and regulatory framework
Discuss inception report with UNIDO, ODG/EVA	1 days	Inception report reviewed
Conduct field mission to Burkina Faso in November 2014	7 days (including travel days)	Presentations of the evaluation's initial findings, draft conclusions and recommendations to stakeholders in Burkina Faso at the end of the missions Agreement with the National Consultant on the structure and content of the evaluation report and the distribution of writing tasks
Present preliminary findings and recommendations to the stakeholders at UNIDO HQ (incl. travel)	3 days Vienna	Presentation slides
Prepare the evaluation report according to TOR and template provided by UNIDO, ODG/EVA Coordinate the inputs from the National Consultant and combine with her/his own inputs into the final draft evaluation report	10 days Home-based	Draft evaluation report

Main duties	Duration/ location	Deliverables
Revise the draft project evaluation reports based on comments from the UNIDO Office for Independent Evaluation and stakeholders and edit the language and form the final version according to UNIDO standards	3 days Home-based	Final evaluation report
<b>TOTAL</b>	<b>30 days</b>	

**Qualifications and skills:**

- ✓ Knowledge about multilateral technical cooperation and the UN, international development priorities and frameworks.
- ✓ Advanced degree in environmental science, engineering, development studies or related areas
- ✓ Knowledge of and experience in environmental projects management and/or evaluation (of development projects)
- ✓ Working experience in developing countries
- ✓ Experience in evaluation of GEF projects and knowledge of UNIDO activities an asset

**Language:** English

**Absence of Conflict of Interest:**

According to UNIDO rules, the consultant must not have been involved in the design and/or implementation, supervision and coordination of and/or have benefited from the programme/project (or theme) under evaluation. The consultant will be requested to sign a declaration that none of the above situations exists and that the consultants will not seek assignments with the manager/s in charge of the project before the completion of her/his contract with the UNIDO Office for Independent Evaluation.

### Job description

<b>Post title</b>	National evaluation consultant
<b>Duration</b>	30 days over a period of 2 months
<b>Started date</b>	November 2014 to December 2014
<b>Duty station</b>	Home based, travel within Burkina Faso

#### Duties

The consultant will participate and contribute to the project evaluation according to the evaluation terms of reference. S/he will be a member of the evaluation team, work under the supervision of the international evaluation consultant and carry out the task assigned to him/her by the international evaluation consultant, including the following tasks:

Main duties	Duration/ location	Deliverables
<p>Review project documentation and relevant country background information (e.g., national policies and strategies, UN strategies and general economic data)</p> <p>Coordinate with the counterpart from Burkina Faso the planning of the evaluation field mission and contacting concerned organizations to prepare the evaluation programme</p>	<p>6 days</p> <p>Home based</p>	<p>Inputs, feedback and comments to the inception report</p> <p>Evaluation mission programme</p>
<p>Carry out meetings, visits and interviews of stakeholders according to the evaluation programme and facilitate the work of the evaluation team in Burkina Faso (including acting as interpreter)</p> <p>Participate in drafting the main conclusions and recommendations, and present them to stakeholders in accordance with the instructions of the International Evaluation Consultant</p>	<p>14 days</p> <p>(including travel days)</p>	<p>Notes, tables; information gathered on issues specified in ToR</p> <p>Draft conclusions and recommendations to stakeholders</p>
<p>Contribute to the draft report as assigned by the International Evaluation Consultant</p>	<p>7 days</p> <p>Home based</p>	<p>First draft of chapters on the country background and other inputs into the draft evaluation report as agreed with the International Evaluation Consultant</p>
<p>Revise the draft chapters based on comments from UNIDO Office for Independent Evaluation and stakeholders</p>	<p>3 days</p> <p>Home based</p>	<p>Final evaluation report</p>
<b>TOTAL</b>	<b>30 days</b>	

**Qualifications:**

- ✓ Advanced degree in environmental science, engineering, development studies or related areas
- ✓ Experience in evaluation of environmental projects
- ✓ Knowledge of GEF and UNIDO technical cooperation activities an asset
- ✓ Familiarity with the institutional context of the project in Burkina Faso (environmental authorities, NGOs, etc.)

**Language:** English and French

**Absence of Conflict of Interest:**

According to UNIDO rules, the consultant must not have been involved in the design and/or implementation, supervision and coordination of and/or have benefited from the programme/project (or theme) under evaluation. The consultant will be requested to sign a declaration that none of the above situations exists and that the consultants will not seek assignments with the manager/s in charge of the project before the completion of her/his contract with the UNIDO Office for Independent Evaluation.

## **Annex 7 - Reference documents**

1. Project document: "GEFTF CEO Endorsement Burkina Faso GEF 4 21.02.12 final"
2. GEF annual Project Implementation Review (PIR) reports
3. Diagnostical Cluster Study: "Promotion de foyers énergétiquement efficaces dans la brasserie traditionnelle dans Burkina Faso"

## Annex 8 – Project results framework

Goal						
To ensure environmental sustainability through reducing GHG emissions related to the Beer Brewing Industry in Burkina Faso						
Objective						
To stimulate the market demand for improved cook stoves in the Beer Brewing Industry						
Outcome 1		Indicators	Baseline	Targets	Means of verification	Risks and Assumption
1. Beer brewers adopt improved cook stoves		Tonnes of CO <sub>2</sub> e reduced	No direct or indirect emission reductions	Cumulative direct & indirect emission reduction of 406,540 tCO <sub>2</sub> e & 1,219,620 tCO <sub>2</sub> e	Verification reports  Bank loan agreements	Promoting energy efficient cook stoves & saving firewood is a priority for the Burkinabe Government
		MJ of biomass energy saved	No savings achieved	49,800 MJ of biomass energy saved per year		
		US\$ disbursed through loans	No loans disbursed	At least US\$ 250,000 disbursed per year		
Outputs	Activities	Indicators	Baseline	Targets	Means of verification	Risks and Assumption
1.1. The technical capacity of stove manufacturers on design and construction of improved cook stoves & optimize fuel consumption upgraded	1.1.1. Train 100 cookstove manufacturers on improved cook stove construction and maintenance	# of trained masons	No trained masons	100 trained masons (out of which 10% women)	Training reports	Producers of improved cook stoves are willing to engage in training and development of improved cook stoves.
	1.1.2. Analyze the energy potential of agro-wastes (solid and liquid) generated during beer brewing 1.1.3. Identify appropriate RE technologies 1.1.4. Evaluate the economic viability of the various options 1.1.5. Compile recommendations on future use of agro-waste to optimize fuel efficiency	Study on the use of agro residues	No information on the potential and uses for agro residues generated during beer brewing	1 study on the potential and use of agro residues available	Study report	
1.2. Financing facility for improved industrial cook stoves set up	1.2.1. Signature of an agreement with a local bank for administering the loan 1.2.2. Implement 1000 projects in rural areas 1.2.3. Compile the results and lessons learned from the implementation of these projects 1.2.4. Disseminate the lessons learned through different media	\$ of investment mobilized	No investments in EE cookstoves	At least US\$ 250,000 mobilized per year	Bank financing agreements	Reduction of the life cycle energy costs becomes a priority for beer brewers.
		# of cook stoves replaced	Old stoves continue in operation	1000 replaced cook stoves	Brochures and websites	
		# of good practice	No best practice	50 good practice		

## Project results' framework (cont.)

		examples available	examples available	examples available		
Outcome 2		Indicators	Baseline	Targets	Means of verification	Risks and Assumption
Development of MSME clusters as a tool to achieve collective efficiency gains and foster the uptake of socially and environmentally responsible production practices		# of clusters developed	No clusters available	3 clusters developed (100% women)	Monitoring and evaluation reports	Cook stoves replaced are occurring due to improved market conditions
Outputs	Activities	Indicators	Baseline	Targets	Means of verification	Risks and Assumption
2.1. Microenterprise cluster association for beer brewers is developed and formalized	2.1.1. Identify and select clusters with high concentrations of Microenterprises 2.1.2. Create awareness on benefits of greater linkage and cluster strategies 2.1.3. Appoint cluster brokers and provide training on cluster development approach 2.1.4. Prepare an action plan on enhancing business opportunities for beer brewers 2.1.5. Implement the action plan 2.1.6. Monitor and evaluate the activities in the cluster	# of clusters associations formalized	No clusters association available	One cluster association formalized (100 % women)	Monitoring and evaluation reports	Beer breweries endorse the cluster concept
2.2. Vertical linkages between the cluster and the distribution and supply chains for improved cookstoves are established	2.2.1. Evaluate the existing sales, distribution and supply chains for improved cookstoves 2.2.2. Develop an action plan promoting efficient commercial chains for improved cookstoves 2.2.3. Implement the action plan 2.2.4. Monitor and evaluate implementation of the action plan	increase in the number of cook stoves sold per year	No increase in the sale of cook stoves	500 cook stoves sold per year	Monitoring and evaluation reports	
Outcome		Indicators	Baseline	Targets	Means of verification	Risks and Assumption
3. Human capacity to prepare carbon financing projects is developed.		# of GS projects developed	No GS projects registered	At least one GS project on improved cook stoves registered	GS project registry	Voluntary Carbon markets continue project financing
Outputs	Activities	Indicators	Baseline	Targets	Means of verification	Risks and Assumption
3.1. A national cadre of project developers, project operators and monitoring entities are trained.	3.1.1. Training 20 master project developers on GS project identification and development 3.1.2. Establish a monitoring methodology 3.1.3. Train 50 project operators on registration and monitoring requirements	# of project developers trained  # of project operators trained	No project developers available locally  Project operators not aware of	20 project developers trained (out of which 50% women)  50 project operators	Project reports	Qualified entities are identified to act as the DOE and CME
	3.1.4. Establish a platform for interaction between project developers, project operators, DOE, CME, DNA and other relevant stakeholders	Platform established	monitoring requirements  No platform available	trained (Out of which 50% women)  1 platform established		

## **Annex B: Reference documents**

- Project documents of individual TC projects
- Project progress reports and self-assessments
- Back-to-office reports of project managers
- UNIDO Programme and Budget
- UNIDO Medium Term Planning Framework
- Thematic evaluation: UNIDO Field Office performance (March 2013)
- UNIDO's contribution to the Millennium Development Goals (October 2012)
- UNIDO contribution to One UN mechanisms (May 2012)
- Economist Intelligence Unit documents: country profile and country reports
- OECD documents on foreign cooperation with XX
- Human Development Report 2013 (UNDP. 2013)
- Independent evaluation of delivering as One (UN. October 2012)
- Evaluability assessments of the programme country pilots delivering as One UN. Synthesis report (UNEG. December 2008)
- Industrial reports on sectors from different sources
- World Bank data and statistics on Burkina Faso



Annex C: Map of Burkina Faso with main project sites (highlighted project sites were visited by the ET)



**Annex D: Organizations visited and persons met**

Meeting/interview	Name (contact details)
Interviews with Project team	Ms. Rana Ghoneim (PTC/ECC/IEE, ext 4356) Ms. Tatiana Zervou (PTC/ECC/IEE, ext 3599) Mr. Adnan Seric (PTC/BIT/CBL, ext 3891)
Interview with GEF coordination office	Mr. Juergen Hierold , and Ms. Ganna Onysko (PTC/PRM/PMU, ext: 3793 & 3647)
Interview with the Africa Bureau	Mr. Bashir Conde (PRF/RPF/AFR, ext: 3841)
Interview with procurement	Nathalie Maabdi (PSM/OSS/PRS, ext: 4814)
Meeting with Branch Director	Mr. Pradeep Monga (PTC/ECC, ext. 3018)

NOM	PRENOM	FONCTION	STRUCTURE	CONTACT (S)
OUATTARA	Youssouf	Secrétaire Général	Ministère de l'Environnement et des Ressources Halieutiques	+ 226 70 23 83 07
MRABIT	Nadia	Directrice Afrique	Envirofit – Ancienne Coordinatrice du Projet	+ 226 73 20 55 05
OUEDRAOGO/ BARRY	Mariama	Ex Agent de Développement Cluster Saaba/Pabré	ONUDI	+226 66 88 45 92
SANOGO	Oumar	Directeur Général	Institut de Recherche en Sciences Appliquées et Technologiques	+ 226 70 84 64 04
BOUDA	Blandine	Présidente	Coordination des Associations des Dolotières du Kadiogo	+ 226 70 03 24 10
OUEDRAOGO	Mamouna	Présidente	Cluster de Pabré	+ 226 71 08 26 51
BANDKUILGA	Juliette	Présidente	Cluster de Saaba	+ 226 76 47 47 24
ILBOUDO	Martine	Présidente	Cluster de Ziniaré	+ 226 76 40 66 92
KABORE	Elisiam	Présidente	Cluster de Zorgho	70 36 93 65
Thombiano	Sylvain	Coordonateur du projet foyers améliorés dolo	SNV Dédougou Membre du cadre de concertation sur les Foyers améliorés	+226 77 33 33 71
KERE	Albert	GIZ	Responsable des FAFASO intérimaire Membre du cadre de concertation sur les Foyers améliorés	albertkere@giz.de
DIAKITE	Bakary	Tipaalga	Responsable Tipaalga. Membre du cadre de concertation sur les Foyers améliorés	+ 226 76 50 46 87

## Annex E: Evaluation matrix and interview guidelines

Evaluation criteria	Guiding evaluation questions	Source of information					Evaluation tools			
		Counter-part	Donor	Project Manager	Beneficiaries	Experts	Doc review	Interview	Field Obs.	
Relevance	• How is the project aligned to a national development priority?	x		x			x	x		
	• Why/how were government agency and/or company selected to partner with UNIDO?	x	x	x				x		
	• To what extent are the problems that originated the project still relevant today? • Have there been changes in the context that affected the project significantly?	x		x	x	x		x	x	
	• To what extent the project is relevant to intended target groups/beneficiaries?	x		x	x			x	x	
	• IMPACT: To what extent is the project contributing to international development priorities (e.g., Medium-term development framework, MDGs, UNDAF, DaO)? • IMPACT: How these contributions (if any) can be measured?	x	x	x			x	x	x	
Effectiveness	• What are the main results of the project so far? (for on-going projects)	x		x	x	x	x	x	x	
	• To what extent outputs established in the project document are delivered?			x	x	x		x	x	
	• To what extent outcomes established in the project document are being achieved (or likely to be)?			x	x	x		x	x	
	• To what extent outputs are/were sufficient to achieve the outcome?			x		x	x	x	x	
	• To what extent were SMART performance indicators established and measured?			x		x	x	x	x	
	• To what extent has the project reached the intended beneficiaries?			x	x	x		x	x	

Evaluation criteria	Guiding evaluation questions	Source of information					Evaluation tools			
		Counter-part	Donor	Project Manager	Beneficiaries	Experts	Doc review	Interview	Field Obs.	
Efficiency	• To what extent UNIDO services were adequate (expertise, training, equipment, methodologies..)?	x			x	x		x	x	
	• To what extent were resources/inputs converted into outputs in a timely and cost-effective way?			x	x	x		x	x	
	• What were the main factors influencing the delivery of outputs? (Issues / context that facilitated implementation?)			x	x	x		x	x	
	• What were the main barriers, if any, encountered during project implementation?	x		x	x	x		x	x	
	• How has the project management addressed barriers / challenges?			x	x	x		x	x	
	• How was the project monitoring conducted?			x		x	x	x	x	
	• To what extent were project progress reports updated/recorded systematically?	x	x	x			x	x	x	
	• Has the in-country presence improved project monitoring and supervision?	x	x	x		x		x	x	
• To what extent is the UR involved in supervising and monitoring projects?	x		x				x	x		
Sustainability/ Ownership	• To what extent were government counterparts and key stakeholders involved in the project design?	x	x	x	x	x		x	x	
	• What is the level of local/national funding/financing?	x	x	x			x	x		
	• What has been the involvement of government counterparts / private sector in implementation?	x		x				x	x	
	• Are the main stakeholders taking effective leadership in the project implementation? Why or why not?	x	x	x	x	x		x	x	
	• What plans have been made to ensure sustainability of project results / benefits?	x		x	x		x	x	x	

Annex E: Evaluation matrix and interview guidelines

Evaluation criteria	Guiding evaluation questions	Source of information					Evaluation tools			
		Counter-part	Donor	Project Manager	Beneficiaries	Experts	Doc review	Interview	Field Obs.	
Project design Process (Situation, gap, problem analysis, objectives analysis, formulation process, LFA and RBM approach)	• What do you see as strengths / weaknesses of the project design?		x	x	x		x	x	x	
	• How was the consultation process during the project design?	x	x	x	x			x	x	
	• What would you change of the project design if you had the chance of starting all over again?	x	x	x	x			x	x	
	• To what extent project has been designed using the LFA?	x	x	x	x		x	x		
	• To what extent have evaluations been used and drawn on in the design of projects and / or to learn lessons?	x	x	x	x		x	x	x	
	• Overall quality of project design (clarity, consistency and logic. Results chain, SMART indicators, Realistic and meaningful outputs and outcome)						x			
Overall / Cross-cutting	• What have been in your view the strengths and weaknesses of UNIDO with respect to this project?	x	x	x	x	x		x	X	
	• To what extent the project has contributed to empowerment of women and gender equality?	x	x	x	x	x	x	x	X	
	• To what extent the project has contributed (positively or negatively) to environmental sustainability?;	x	x	x	x	x	x	x	x	
	• How this project contributed to the One UN Programme objectives. (for DaO projects)	x	x	x	x	x	x	x	x	
	• How was coordination/synergies among UNIDO activities at the national level, including TC projects, and GF activities?	x		x	x			x	x	
	• How projects/programmes were integrated/coordinated with other UN project/programmes?. Have synergies with other initiatives been developed and exploited by UNIDO?	x	x	x	x		x	x	x	
	• What could be learned from the experiences of other UN agencies in the country?	x	x	x	x			x	x	

Evaluation criteria	Guiding evaluation questions	Source of information					Evaluation tools			
		Counter-part	Donor	Project Manager	Beneficiaries	Experts	Doc review	Interview	Field Obs.	
	<ul style="list-style-type: none"> <li>To what extent UNIDO financing or co-funding was part of the budget and what the UNIDO financing was used for?</li> </ul>	x	x	x	x		x	x	x	
	<ul style="list-style-type: none"> <li>To what extent has the management structure and procedures adequate (structure, information flows, decision making, procurement) and contributed to generate the planned outputs and achievement of outcome?</li> </ul>	x		x	x	x	x	x	x	
	<ul style="list-style-type: none"> <li>What could be improved (if any) on UNIDO's model of intervention?</li> </ul>	x	x	x	x	x		x	x	
	<ul style="list-style-type: none"> <li>To what extent UNIDO GF activities nurtured national knowledge and dialogue globally and with regard to industrial development in the country?</li> </ul>	x	x	x	x	x	x	x	x	
IP XX	<ul style="list-style-type: none"> <li>To what extent to which UNIDO's Field Office supported coordination, implementation and monitoring of the programme?</li> </ul>	x	x	x	x		x	x	x	
	<ul style="list-style-type: none"> <li>To what extent UNIDO HQ management; coordination and monitoring have been efficient and effective?</li> </ul>	x	x	x	x		x	x	x	
	<ul style="list-style-type: none"> <li>How effective were coordination arrangements with other development partners?</li> </ul>	x	x	x	x			x	x	
	<ul style="list-style-type: none"> <li>To what extent UNIDO contributed to the One UN and other UN coordination mechanisms?</li> </ul>	x	x	x	x		x	x	x	
	<ul style="list-style-type: none"> <li>To what extent the IP design and implementation had government ownership, alignment with government strategies, results orientation, use of country systems, tracking results, and accountability?</li> </ul>	x	x	x	x		x	x	x	
UNIDO Field Office	<ul style="list-style-type: none"> <li>As per Field Office assessment framework</li> </ul>	x	x	x	x		x	x	x	
Additional comments / observations	<ul style="list-style-type: none"> <li>E.g., project sites, contacts, issues</li> </ul>									