**E X E C U T I V E S U M M A R Y**

P R O J E C T I N F O R M A T I O N T A B L E

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| Project  Title: | Addressing Barriers to Adoption of Improved Charcoal Production Technologies and Sustainable Land  Management Practices through an Integrated Approach | | | | |
| Project IDs: | | GEF SEC PROJECT ID: 4644 |  | at endorsement (US$) | at mid – term (US$)1 |
| PIMS | | 4493 | GEF financing: | 3,480,000 | 1,773,563 |
| Country: | | Uganda | UNDP | 1,860,000 | N/A |
| Region: | | Africa | Government of  Uganda | 6,928,246.00 | N/A |
| Focal Area: | |  | Other partner resources | FAO 1,600,000  UNCDF 1,300,000  GIZ 2,607,562  BTC 290,000 | N/A |
| GEF | | Phase 5, System of  Transparent Allocation of Resources (GEF-5  STAR) | Total co-  financing: | 14,585, 808 | N/A |
| Implementing  Agency: | | UNDP | Total Project  Cost: | 18,065,808 | N/A |
| Implementing  Partner: | | Ministry of Energy and Mineral Development (MEMD) of Uganda | ProDoc Signature: | | May 20142 |
| (Operational) Closing Date: | Proposed: May 20183 | |

**P R O J E C T D E S C R I P T I O N**

The Addressing Barriers to Adoption of Improved Charcoal Production Technologies and Sustainable Land Management Practices through an Integrated Approach Project in Uganda has as its goal “Improved charcoal production technologies and sustainable land management practices through an integrated approach in Uganda.” Furthermore, the project’s objective is to secure multiple environmental benefits by addressing the twin and linked challenges of unsustainable utilization of fuel wood (including charcoal) and poor land management practices common in Uganda’s woodlands through technology transfer, enhancement of the national policy framework and the promotion of Sustainable Land Management (SLM) and Sustainable Forest Management (SFM) practices. The project involves the introduction of technology through piloting low carbon emission sustainable charcoal technologies and broader sustainable land and forest management practices in four districts: Kiboga, Kiryandongo, Mubende and Nakaseke.

The intervention has been organised into three components, each containing several different expected outcomes and outputs.4 These are:

I. Data collection and improved coordination and enforcement of regulations governing the biomass energy sector, in particular those related to sustainable charcoal.

❖ Outcome 1: Existing & ongoing policy, regulatory and institutional work on

sustainable charcoal and land tenure security integrated with recommendation from the new biomass energy strategy (BEST).

❖ Outcome 2: Improved coordination of institutions managing sustainable charcoal

production at district level

❖ Outcome 3: Improved data collection and monitoring of biomass energy and charcoal

production and use (integrated into national database)

❖ Outcome 4: Improved charcoal and biomass guidelines and ordinances at district level

❖ Outcome 5: Heightened awareness of new institutional frameworks and ordnances,

guidelines and certification schemes at district level

II. Dissemination of appropriate technologies for sustainable charcoal production in selected

(4) charcoal-producing districts (Mubende, Kiboga, Nakaseke and Kiryandongo).

❖ Outcome 1: Low-carbon charcoal production technologies have successfully replaced

inefficient systems in targeted pilot districts leading to:

- 143,314 metric tons (MT) of wood saved over project lifetime from improved kilns compared to BAU scenario (14,431 hectares of avoided deforestation)

Lifetime energy savings (compared to BAU scenario) of:

- 1,843,200,000 MJ for Casamance kilns (avoided emissions of 210,816 tCO2eq); and

- 9,737,142,857 MJ for retort kilns (avoided emissions of 1,113,686 tCO2eq)

- Additional lifetime avoided methane emissions for all retort kilns introduced of

252,000 tCO2 eq

❖ Outcome 2: Sustainable charcoal recognized as a viable SME in pilot districts by end of project and for post-project sustainability

❖ Outcome 3: Carbon finance is integrated into sustainable charcoal practice in targeted areas

❖ Outcome 4: Increased incomes for all charcoal cooperatives involved in project

❖ Outcome 5: Technical support for charcoal briquetting producers enhanced

*III. Strengthening the capacity of key stakeholders in SFM and SLM best practices and establishment of sustainable woodlots.*

❖ Outcome 1: Improved capacities of stakeholders in targeted districts to establish and manage dedicated sustainable woodlots leading to:

- Accumulated yields of 368,770 MT of renewable biomass produced over 5,900 hectares under woodlot management by end of project (year 5) and 1,475,083 MT of biomass accumulation over the lifetime.

- Net avoided lifetime emission reductions of 2,699,402 tCO2eq of avoided deforestation compared to the BAU scenario from use of this renewable biomass in kilns compared to a BAU scenario

❖ Outcome 2: Best practice SLM/SFM knowledge effectively transferred from successful

SLM projects in neighboring districts to four pilot districts for this project leading to:

- 50,000 ha of forestlands across four pilot districts brought under improved multifunctional forest management leading to enhanced carbon sequestration of 2,100,000 tCO2eq over lifetime

- At least half of land under improved SFM registers reduction in land degradation by at least 20% as measured by reduction in soil erosion and improvement in soil organic matter

- Conservation farming practices piloted leading to verified improved soil organic matter and yield increased across 400 hectares.

The Implementing Partner for the Project is the Ministry of Energy and Mineral Development (MEMD) of Uganda. The Project is being implemented in a National Implementation Modality (NIM). The Green Charcoal Project has an expected timeline of implementation of four years, beginning on May 2014 with a proposed end date of May 2018 The Project was designed to receive funding and co – funding as follows: GEF US$ 3,480,000; UNDP US$ 1,860,000, Government US$ 6,928,246; FAO US$ 1,600,000; UNCDF US$ 1,300,000; GIZ US$ 2,607,562; BTC US$ 290,000. It has a total budget of 18,065,808 USD.

**P R O J E C T P R O G R E S S S U M M A R Y**

Many of the expected objectives /results / products / outputs of the Green Charcoal Project have been achieved. Others have not been achieved to the degree expected at mid – point. Overall, several of the achievements have been positive when they materialized yet there are also several issues with these achieved outputs. National level products (database, survey, database, standards, research, etc.) have been accomplished, laying a baseline for the attainment of policies, norms, financial investments and other products/outcomes sought within the Project and beyond. The implementation and the attainment of products at the district level has been done at a good pace of delivery, notwithstanding issues and challenges encountered at the local level. Capacity building processes have taken place, in particular at the pilot sites, and they have been positive in dissemination of information and in the generation of capabilities, in particular when they were accompanied by demonstration. Extensive awareness raising has taken place, mainly through dissemination of information through media. However, several expected outputs and products are being achieved at a moderate level, yet several barriers, weaknesses, issues, and challenges have been identified which (if acted upon in the remaining implementation period) can positively impact upon the progress toward outcomes and in achieving the Project’s objective in a sustained and sustainable manner.

M T R R A T I N G S A N D A C H I E V E M E N T S U M M A R Y T A B L E 5

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| Measure MTR Rating Achievement Description | | |
| Progress Towards Results | Objective: “Secure multiple environmental benefits by addressing the twin challenges of unsustainable utilization of fuel wood (including charcoal) and poor land management practices common in Uganda’s woodland through technology transfer, enhancement of the national policy framework and the promotion of Sustainable Land Management (SLM) and Sustainable Forest Management (SFM) practices.”  Achievement Rating: Moderately Satisfactory MS | As a composite, there are some shortcomings in the achievement of objective. Although some outputs have been achieved in a moderately effective and a moderately efficient manner (particularly those directly involving pilot sites and work with districts and national level data/surveys/etc.), other outputs and outcomes that make up and articulate the objective have not been met at the expected mid-point level. Since the objective seeks effects, and the approach to implementation has mainly centred on products, there is a gap in achieving objective fully. No shortcomings in terms of relevance. |
| I. Data collection and improved coordination and enforcement of regulations governing the biomass energy sector, in particular those related to sustainable charcoal.  Achievement Rating: Moderately Satisfactory MS | Some shortcomings in the achievement of objectives in terms of effectiveness and efficiency. Although data collection has been successfully attained, improved coordination and enforcement of regulations governing sustainable charcoal has not been attained as a result of the Project. There is little emphasis on the latter. No shortcomings in terms of relevance |
| II. Dissemination of appropriate technologies for sustainable charcoal production in selected (4) charcoal-producing districts (Mubende, Kiboga, Nakaseke and Kiryandongo).  Achievement Rating: Moderately Satisfactory MS | Some shortcomings in the achievement of objectives in terms of effectiveness. A few shortcomings in terms of efficiency. Dissemination of technologies for charcoal production has taken place, perhaps not at the pace expected, yet several aspects of technology transferred have been ignored such as business aspects in the whole charcoal production as well as other market-related issues and sustainability. No shortcomings in terms of relevance. |
| III. Strengthening the capacity of key stakeholders in SFM and SLM best practices and establishment of sustainable woodlots.  Achievement Rating: Moderately Satisfactory MS | Although pilots have been implemented in SFM and SLM, they are not truly linked to best practices and establishment of sustainable woodlots. To date, the majority of SFM pilots have dealt almost exclusively with reforestation (i.e. planting of seedlings) and SLM pilots (although highly positive in and of themselves) do not link to sustainable woodlots nor to charcoal production. Therefore, taking into account effectiveness there are shortcomings in this criterion. Delivery indicative that there are no major shortcomings in efficiency. Few shortcomings in relevance. |
| Project Implemen- tation & Adaptive Management | Rating: Moderately Satisfactory MS | Some shortcomings in the achievement of objectives in terms of effectiveness. Few shortcoming in term of efficiency. Roles of partners unclear to some degree. No adaptive management implementation has taken place. |
| Sustainability | Rating: Moderately Likely ML | At the midpoint, and as a composite assessment, there are some risks that not all key outcomes will carry on after project closure. However, some outputs/activities likely to carry on after closure. |

5 Reference: The ratings for performance follow a six – point scale (Highly satisfactory (HS); Satisfactory (S); Moderately Satisfactory (MS); Moderately Unsatisfactory (MU); Unsatisfactory (U); Highly Unsatisfactory (HU)). The rating for sustainability follows a four – point scale (Likely (L); Moderately Likely (ML); Moderately Unlikely (MU); Unlikely (U); Highly Unlikely (HU). The ratings explanations are found in annexes (see Annex 5: Rating Scales).

C O N C I S E S U M M A R Y O F C O N C L U S I O N S

The Addressing Barriers to Adoption of Improved Charcoal Production Technologies and Sustainable Land Management Practices through an Integrated Approach Project in Uganda has as an overarching goal “Improved charcoal production technologies and sustainable land management practices through an integrated approach in Uganda.” The project’s objective is “to secure multiple environmental benefits by addressing the twin challenges of unsustainable utilization of fuel wood (including charcoal) and poor land management practices common in Uganda’s woodland through technology transfer, enhancement of the national policy framework and the promotion of Sustainable Land Management (SLM) and Sustainable Forest Management (SFM) practices. “ The Green Charcoal Project, through these objectives/results/components/outcomes/outputs, expects to address the barriers that deter effective sustainable equitable management of the charcoal sector in Uganda. Given the importance of biomass energy in the country, the intervention is highly relevant to Uganda. This is also due to the fact that it is consistent with national and district level policies and priorities as well as with the needs of intended beneficiaries.

The design of the Project was very thorough in its analysis and use of baseline information, drawing upon knowledge within the country and the region on the biomass/charcoal sector, its relation to sustainable development, natural resources and key issues for Uganda such as deforestation and adaptation to climate change. However, it can also be said that design is highly convoluted, overly ambitious, some of the intended processes to be implemented are unfeasible, it is confusing in several of its programmatic aspects, it loses sight that it is a piloting/innovation project, and it is overly complex.

Regarding the Project’s efficiency and effectiveness, these have been varied. Understanding that efficiency (which is determined by how economically resources or inputs such as funds, expertise and time are converted to results) and effectiveness (which is determined by the extent to which the initiative’s intended results have been achieved or the extent to which there has been progress toward achieving outputs or outcomes) are interlinked concepts, the Green Charcoal Project has had an average degree of accomplishment when analysing through these criteria since some products have been achieved and delivered, yet they are in need of further underpinning to be effective, results-based, and truly sustainable. Organisational issues have hindered to some degree timely implementation. Issues such as delays in disbursement, lengthy procurement processes, and to some degree lack of coordination between partners, have resulted in several postponements. Although positive in many respects, the implementation of piloted technologies, innovative approaches, and some of the general activities lack strong business and private sector components. The Green Charcoal Project included gender considerations beginning from its design level. The Project has achieved several key products at the national level. Yet, several expected norms and policies to be obtained within the Project framework (expected outputs/outcomes) are stalled, in part due to existing policy and institutional issues, such as the atomization and dispersion of the charcoal field in Uganda.

The Green Charcoal Project is critical for addressing a crucial energy issue for Uganda. The positive achievements thus far can be underpinned and improved in order to obtain results that are integrated and sustainable. The Project can be redirected to produce lasting effects that deal with charcoal sector issues in a sustainable manner and with benefits for all stakeholders. This Project, if redirected and implemented in a systematic manner and if its aims and objectives are fulfilled, could be a keystone intervention, due to its high replicability, upscaling and catalysing factors, not only for the country but also for the region.

R E C O M M E N D A T I O N S U M M A R Y

R E C O M M E N D A T I O N S A T T H E D E S I G N L E V E L FO R F U T U R E P R O G R A M M I N G O F G E F F U N D E D – U N D P I M P L EM E N T E D P R O J E C T S

1. Design of these sort of projects should be streamlined, focused in subject and in territory, realistic and not overly dimensioned nor overly ambitious.

2. Indicators are key components of design and log frame and should be set at design with their intention made clear: to determine a project’s progress, impacts, and effects.

3. Exit strategies and sustainability factors should be part of the design of a project.

R E C O M M E N D A T I O N S F O R R E M A I N I N G I M P L E M E N T A T I O N P E R I O D O F T H E P R O J E C T

4. Streamline organisational issues that hinder timely implementation, such as issues associated with delays in disbursements, lengthy procurement processes, and lack of coordination between partners.

5. Strengthen business and private sector components of the whole value chain of charcoal within the Project outputs and processes. Strengthen private sector engagement in the project, in the whole value chain of charcoal (supply, transport of inputs/biomass, marketing, vending, transporting). Generate and disseminate business plans of introduced technologies.

6. Monitor and follow up the implemented pilots regarding technical issues and other matters that have arisen after piloting interventions or the products achieved with the districts.

7. Strengthen the monitoring of implementation, technologies, outputs and achievements at the results, effects, and impact levels, making certain that monitoring fulfils quality assurance and is based on robust techniques and adequate methodologies.

8. Strengthen project expected outcomes that deal with national existing and ongoing policy, as well as national regulatory and institutional work on sustainable charcoal and land tenure security, and dealing with the mobilization of investments in the charcoal field.

9. Integrate sustainable land management components and sustainable forest management components to charcoal issues within the framework of the Project.

10. Ensure that gender considerations are fully integrated in all aspects of the Project in order to enhance benefit sharing for women from project intervention, taking into account women’s participation in the charcoal chain, land ownership, income generation, and meaningful participation.

11. Upgrade the role of UNDP to guide and leverage implementation of Project closely and strengthen relation with partners in order to improve implementation process and ensure quality and results of the intervention.

12. Strengthen technical capacities of the Project, first by incorporating technical advisor and by making certain that products, processes, monitoring, and outputs are of high technical quality.

13. Generate materials that can be used for different processes, for follow-up, upscaling and replication as well as to document the intervention.

14. Begin to generate an exit strategy soonest, including financial and policy/institutional aspects.

R E C O M M E N D A T I O N S F O R A N E X T E N S I O N R E Q U E S T

15. It is recommended that a no - cost extension, should one be requested, be granted for the Project considering the delays it had.