**Executive Summary**

This Terminal Evaluation (TE) has been conducted as part of the Monitoring and Evaluation plan of the UNDP/GEF Project: “Enabling Environment for SLM to overcome Land Degradation in the Uganda Cattle Corridor Districts”, and will be referred to as the “Project” in the scope of this report. The TE mission to Uganda was conducted from 14th to 23nd December 2015. Extensive consultations with the project partners were also conducted prior and following the mission to ensure a good understanding of the project’s results; leading to the submission of the TE report on the date of this report.

**Brief Description of Project**

The Uganda Cattle Corridor covers an estimated area of 84,000 km2 (i.e. 43% of the country's total land area), and is home of 6.6 million people. The corridor is a semi-arid transition zone across the centre of the country, between the wet forest/grassland mosaics to the south around Lake Victoria, and the arid grasslands on the Sudanese boarder in the north (Karamoja). Most of the cattle corridor was traditionally inhabited by pastoralists who communally grazed their herds on the range, mixed with limited rain-fed agriculture. The corridor is host to a mixed production system comprising of nomadic pastoralists, agro-pastoralists and subsistence farmers; all subsisting in the drylands with a production system characterized by five critical facts: unclear, insecure land and resource tenure, increasing demand for biomass energy, low levels of economic growth, high and growing population and uncertain climatic conditions. The corridor exhibits serious land and resource degradation driven by overgrazing, inappropriate agriculture practices and charcoal production leading to deforestation. Overall impact of degradation has been the disruption of ecosystem services, particularly provisioning services due to: habitat fragmentation that reduces complexity and diversity; soil erosion with consequent declining soil fertility and declining productivity; and, invasion by termites and nutrient loading of water bodies.

Weaknesses in the policy and policy implementation, weak capacity for the use of knowledge to guide land use planning and the lack of alternative income generating activities to support local economic development and sustainable land management are three key barriers that hinder adoption of sustainable land management systems in the cattle corridor.

The project’s goal is “Sustainable Land Management” that provides the basis for economic development, food security and sustainable livelihoods while restoring the ecological integrity of the Cattle Corridor ecosystem. The objective of the project is to provide land users and managers with the enabling policy, institutional and capacity environment for effective adoption of SLM within the complexity of the cattle corridor production system, achieved through 3 major outcomes plus a project management component.

The objective of the project is to provide land users and managers with the enabling policy, institutional and capacity environment for effective adoption of SLM within the complexity of the cattle corridor production system. The project sought to achieve three outcomes:

Outcome 1: The policy, regulatory and institutional environment support sustainable land management in the cattle corridor (in particular policy and legislation for sustainable charcoal and tenure security strengthened).

Outcome 2: Knowledge based land use planning forms the basis for improving dry lands sustainable economic development

Outcome 3: Local economic development strengthened through diversification and improved access to finance and insurance

The Project Document was approved jointly by Government of Uganda, GEF and UNDP in August 2010 for the duration of four years. The Project is Executed by the Government of Uganda’s Ministry of Finance, Economic Planning and Development and implemented by Ministry of Agriculture, Animal Industry and Fisheries through Project Management Unit (PMU) with support from UNDP Country Office (UNDP CO) in close coordination with various other institutions and local communities. UNDP as implementing agency was responsible for the completion of all activities including procurement, recruitment, monitoring, and financial disbursement. The Project has been executed in accordance with the standard rules and procedures of the UNDP NEX Execution Modality. The Project budget is US$ 4,230,730 of which US$ 1,830,730 is the GEF Grant and US$200,000 is provided by the UNDP CO. The remaining financing is provided by the Government of Uganda (US$ 100,000) and resource users in the corridor (US$100,000).

**Rating Table**

As per UNDP and GEF’s requirements for TE, the Terminal Evaluation Rating Table is provided below:

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| --- | --- | --- | --- |
| **1. Monitoring and Evaluation** | ***rating*** | **2. IA& EA Execution** | ***Rating*** |
| M&E design at entry | Moderately  Satisfactory | Quality of UNDP supervision/backstopping | Satisfactory |
| M&E Plan Implementation | Moderately Satisfactory | Quality of Execution by Executing agency | Moderately Satisfactory |
| Overall quality of M&E | **Moderately Satisfactory** | Overall quality of Implementation / Execution | **Moderately**  **Satisfactory** |
| **3. Assessment of Outcomes** | **Rating** | **4. Sustainability** | **Rating** |
| Relevance | Relevant | Financial resources: | Likely |
| Effectiveness | Moderately Satisfactory | Socio-political: | Likely |
| Efficiency | Moderately Satisfactory | Institutional framework and governance: | Likely |
| Likelihood of Impact | Moderately Satisfactory | Environmental : | Likely |
| Overall Project Outcome Rating | **Moderately**  **Satisfactory** | Overall likelihood of sustainability: | **Likely** |
| Stakeholder participation | Satisfactory |

**Note:** Justification of rating is given in Annex XIV.

**Key successes**

Project has contributed to food security by improving productivity through promotion of conservation agriculture and decreased pressure on natural forests by promoting tree planting and improved cooking stoves and charcoal kilns of higher efficiency. This also contributed to the United Nations Development Assistance Framework (UNDAF) outcome focusing on supporting development of sustainable livelihoods and employment for vulnerable segments of the population in Uganda, through building the capacity of the UNCCD Focal Point, improving agricultural systems for increased productivity, reducing economic and gender disparities, environmental shocks and recovery[[1]](#footnote-1). Similarly, the planting of fruit trees and fuelwood trees contributed to greenhouse gas sequestration and carbon sink establishment to mitigate climate change. The promotion of energy saving stoves also helped to decrease burden of women by reducing wood demand and also contributing to their health. Increased production from improved agriculture practices helped to improve household economy and also contributed to health and education of children. Increased economic status of women through these activities also contributed in leadership building among women. This also contributed to the National Development Plan by spearheading the smallholder farm productivity improvement in Uganda that systematically integrates Sustainable Land Management (SLM) in the agricultural production systems. Similarly, rain water harvesting at the community and household level helped to address water scarcity and decreased drudgery of women who had to travel long distances to fetch water. The storage and supply of water for cattle will improve cattle health and productivity.

The project helped to build capacity of the local government as well as community based institutions. Technical knowledge and awareness on climate change, soil degradation and sustainable land management has been enhanced and impact has already been seen in their activities. The enhanced capacity will influence development planning which help to mainstream SLM and also prioritize SLM activities in development planning. Replication and upscaling of lessons together with mobilization of USD 2million from COMESA, and additional resources from GEF for the Mount Elgon catchment conservation and more effective management of the rangelands in Karamoja are few examples to mention here as impact of the project. Similarly, at the national level, the project also built capacity of officials of Ministries, departments and also contributed in developing management plans and provided some policy recommendations. It also helped to initiate the process to secure land tenure which will encourage investing in SLM. The project also recommended charcoal policy which will help to regulate production system and increase revenue.

The project closely collaborated with the various ministries, local government and community groups. Furthermore, the project through capacity enhancement, and establishment of a knowledge base contributed in mainstreaming SLM and Climate Change in development planning process of local governments. Through project activities, local communities, community based institutions and government have begun to understand the link between land management activities and the potential impact of climate change on those activities, as well as how such activities trigger land degradation. Overall, the project aimed at building Uganda’s capacity to fulfil its commitments under the UNCCD and enabling Uganda to prevent the progression of desertification conditions in the already vulnerable cattle corridor of Uganda.

**Key problem areas**

The cattle corridor exhibits most of the characteristics of rangelands; low and erratic rainfall regimes interspersed by frequent and severe droughts and fragile soils with weak structures which render them easily eroded. The soil types in the cattle corridor are predominantly poorer than soils in the rest of the country. Like other drylands, the cattle corridor is a unique ecosystem: it is fragile yet resilient, and provides a unique set of ecosystem services to support the country’s economic development and the environment. The cattle corridor supports about 90% of the national cattle population, mainly kept by pastoral and agro-pastoral communities and 85% of the total marketed milk and beef in the country is produced from these.

Unsustainable land use practices in the corridor have led to land degradation in the form of soil erosion, declining soil fertility and deforestation, with serious disruption to the provision of ecosystem services for livelihoods, economic development and environmental management. According to the state of the environment report ( NEMA, 2007)[[2]](#footnote-2), more than 40% of the country’s land is degraded, and the forest cover declined from about 5 million hectares in 1990 to 3.7 million hectares in 2005. Many more hectares of forests have undergone forest degradation and are less capable of sustaining ecosystem services.

Serious land degradation in the area is accelerated by a combination of inappropriate land use practices (agricultural encroachment into forests and reserves) and weakening of pastoralism as a production system. These are further accelerated by high population growth, high dependence on natural resources coupled with poor resource management, and poor economic development, poverty and more recently climate change. Past governments, both colonial and independent, have consistently been more interested in crop agriculture for both export and food production; interventions focused only on soil erosion as the main environment hazard. The concern was more on the increased crop production than on the well-being of the people. The pastoralists in particular were considered merely as agents of environmental degradation who interfered with cash and food crop production, rather than the custodians of the natural resources with vested interests in sustainable management and with systems that could be deployed to achieve multiple objectives.

**Main conclusions, recommendations and lessons learned**

**Conclusion**

The SLM Project was designed with provision of appropriate management arrangements but some of the targets were ambitious and not achievable within the project period. Moreover, the lengthy process of fund disbursement affected implementation of activities in the beginning. With the feedback from monitoring processes, the direct payment to grantees was agreed between the implementing Ministry and UNDP which improved the implementation process. Due to delays in the beginning and various other obstructions the project could not complete all its activities, and at the time of the evaluation results of some of the activities are yet to be seen and some are still under implementation. But despite these difficulties, the team has managed to deliver a series of interventions that have reduced the threats of desertification to a certain level by generating awareness from local level to the national level, mainstreaming SLM in development planning through developing District SLM plans and creating knowledge and access to it and constructing physical structures to combat drought and soil erosion. Target indicators were not observed in the case of the activities that were delayed and initiated only at the latter part of the project. Targets of some of the activities were very ambitious and were recommended to change by the MTR. But the MTR was also conducted late so the formal agreement process to changes the target indicators could not be concluded and this has affected the rating of the achievements. The Project has been underpinned by good science and a sound technical approach, but there were still room for further technical improvement. It has enhanced capacity to incorporate ground information related to soil, weather, local practices and SLM issues into the development planning process of the local government structures/institutions in the pilot areas; and improved awareness about environment issues among the local communities and government concern on the risk of desertification.

The Project was able to accomplish several activities and remaining ones were also initiated and it is expected that it will meet its targets in future if there is sustained efforts and follow up by the implementing and executing agencies. To address the SLM related problems, the project had a four-pronged strategy: review and development of policies; awareness creation; infrastructure development; and improvement of the rural household economy. The policy development approaches included revision of policies and plans to incorporate SLM issues. Similarly, District level Land Management plans were developed to mainstream SLM. Likewise, policy recommendations were made for SLM and sustainable charcoal production. To encourage evidence-based planning, the project conducted studies and generated knowledge on biophysical and socio-economic aspects and these were made available to the local and national government officials. Infrastructures development included the construction of water reservoirs and weather stations for early weather information transmission and contour construction for controlling soil erosion. Without addressing livelihoods of the people it is not possible to fully implement SLM, hence the project trained farmers in conservation agriculture practices which provide the dual benefit of improving household economy and also stopping soil erosion. Similarly, access to improved cooking stoves and improved kilns which double charcoal production also helped decrease drudgery on women, decrease pressure on the forests and also contributed the local economy. To reach large audience, the information of the project were uploaded in websites of the implementing Ministry (MAAIF), UNDP and the project also facilitated networking among institutions working on the same issues within the country.

To improve the sustainability of the positive outcomes and impacts of the interventions, the project promoted the formed community based groups, trained them on various technologies and as well as on financial management. The community members were made aware of the benefits of using weather information from the early warning system to facilitate informed decision making by farmers and pastoralists. The project piloted participatory approach to planning and implementation. Since this approach showed positive results, the lessons learned from this should be replicated in other areas of the cattle corridor and beyond it.

**Recommendation**

1. The Project provided support to CBOs to clear *Lantana camara* from 100ha land in Kasolwe Government Livestock farm (in Kamuli district) to use land for maize and latter for grass plantation. Funds were also provided by the project to purchase equipment and the community groups group produced 12,000kg of biochar for making briquettes. It is recommended that MAAIF and MWE share knowledge from this piloting with different institutions working in this field so that they could consider incorporating similar income generation aspects (e.g. production of bio-briquettes) into their future programming. UNDP should also utilise this knowledge to develop a briquettes program in other projects it supports as a strategy for reducing use of wood for energy and also to provide economic incentives to the rural poor.
2. The cattle corridor has a large number of cattle and these generate large quantities of dung. This dung could be used for biogas production to substitute wood use for reducing pressure on the forests. There are favourable condition for this technology to be successful (e.g. temperature) for producing biogas. This will also further reduce drudgery on women and will have a positive impact on health from reduced exposer to smoke from firewood and charcoal. Slurry from the biogas plants could be further used as manure to improve fertility of the soil and help in pest (e.g. termite) control. Hence it is recommended that Ministries (MAAIF, MWE and MEMD) consider incorporating renewable energy production in the implementation of local level development and sector interventions.
3. Solar technology was not considered in this project. It is recommended that UNDP and also government of Uganda should promote solar technology to substitute Biomass energy demands. Solar cookers and dryers could help in cooking and drying food while electricity from solar be used for lighting and be made available for household use. It is recommended that future project consider using solar water pumps to pump water reservoirs, instead of using fossil fuel based pumps.
4. Additionally, instead of pumping water from the reservoirs to cattle feeding tanks using pumps, making reservoirs and feeding tanks maintaining gradient (land gradient based technology) could avoid use of such pumps. If the reservoir’s floor is raised slightly (about 6 inches) in the existing one and decrease depth of the feeding tank by 6 inches, the gradient will make water to flow from reservoir to feeding tanks without use of any machinery assistance. Same could be followed by placing tanks for human water use under the ground level and people could collect water in buckets dropped with the help of ropes like they do in the traditional wells. Hence, it is thus recommended that future projects interventions consider simpler technologies (e.g. gradient pumping instead of using a fuel-operated pump) that can be easily maintained by community members and do not carry expensive maintenance costs.
5. It is recommended to strengthen implementation of monitoring and feedback mechanisms in future projects. In this project, several tree species used in termite prone areas were exotic and were prone to termite attacks (*Pinus* sp. was exception). If this was monitored on time and provided feedback then damage could have been controlled. Similarly, due to weak monitoring and feedback several activities were delayed.
6. The Project initiated a process of securing land tenure by raising awareness among community members to encourage submission of application for formal land ownership. This process should be continued to provide land ownership documents for farmers. Land tenure is very important as it will encourage investment in sustainable land management. Hence, it is recommended that MAAIF and UNDP follow up and continue to support this process.
7. The project established two weather stations, one in each project districts. The weather station in Nakasongola faced technical problems and was not operating. It is recommended to repair it immediately to provide weather information to the meteorology department. Similarly, until now weather information was not transmitted to farmers on their mobile phones as targeted. Hence, it is recommended that MAAIF should follow up to make sure that the problem at the local body is resolved and dissemination of weather message and information to farmers is initiated.
8. The project supported the development of Parish level land use plans for some parishes in the project districts. It is recommended that the implementing ministries should support the implementation of these land use plans by the district governments. But before that, the local governments should conduct programs to familiarize farmers on the land use planning guidelines.
9. Some activities complement others so they had to be implemented in proper sequence. Some activities are weather specific e.g. plantation. Hence, it is recommended that the future projects of UNDP and also others working in coordination with MAAIF should pay close attention to sequencing of activities prior to implementation to avoid delays and to realise impact of the activities within expected timeframe.
10. It is recommended to upscale and replicate lessons learned from this project by UNDP and other agencies involved in this project. There could be many potential donors willing to invest in such activities so it is also recommended that lessons learned should be disseminated to a larger audience including other areas of cattle corridor and beyond. UNDP and GEF could use its network for dissemination.

**Lessons Learned**

* Women were found to be participating more actively in SLM activities. This could be because they are the ones who are responsible for activities like water collection, firewood collection, livestock grazing, cooking and working in agriculture fields. The community groups with a large number women member and women’s group (100%women) were most successfully implementing project activities.
* It was observed that Termites problem was less in moist areas. This means irrigation could help to address the termite problem.
* The farmer exchange visits promoted farmer to farmer learning and technology transfer from one community to another. This is a good way of transferring technology to farmers as farmers could explain by simplifying the technical terms more appropriately to another farmer than others and this makes learning more effective.
* The local communities understand and appreciate that the livelihood activities like charcoal burning, bush burning, overgrazing and poor soil management contribute to environmental degradation. They showed willingness to change their practices if they are provided with alternative environmentally sound practices like improved casamance kilns and others which will safeguard their livelihoods.
* The inclusion of local communities, through the small grants approach made it easier for local communities to identify environmental issues that need to be addressed and enabled the local communities to innovate a wide range of mitigation measures and livelihood improvement strategies.
* Local knowledge should be promoted with modification (if required) as they are more easily adapted by the rural communities. Local communities were good in identifying signs of land degradation and proposing suitable and feasible mitigation measures. For example the local communities in Nakasongola district proposed and piloted night kraaling as a method of reclaiming bare patches of land, locally known as “biwaramata”. Night kraaling is a practice where the communities confine cattle in a small paddock of a bare patch for several nights to allow the livestock to concentrate the dung deposing in this small area. The dung provides nutrients for the seeds that exist in the dung to germinate and colonise the hitherto bare patches of land. After the bare patch has fairly recovered, the night kraal is shifted to another part of the bare ground for reclamation.

1. United Nations Development Assistance Framework for Uganda, 2010-2014 [↑](#footnote-ref-1)
2. State of Environment Report, NEMA 2007 [↑](#footnote-ref-2)