EXECUTIVE SUMMARY

**Project Description**

The Government of Uganda through the Ministry of Agriculture, Animal Industry and Fisheries [MAAIF] with support from the Common Market for Eastern and Southern Africa [COMESA] and United Nations Development Programme [UNDP] is implementing the project, "Enhancing adoption of Climate Smart Agriculture [CSA] practices in Uganda’s farming systems” which is specifically focused towards five districts, namely Bugiri, Busia, Budaka, Namutumba and Buyende.

This project is part of Uganda Government’s Strategic Investment Framework [SIF] on Sustainable Land Management [SLM]. The SLM SIF is within the framework of the Agricultural Sector Development Strategy and Investment Plan [DSIP]. The SIF identified Climate Smart Agriculture [CSA] practices such as Conservation Agriculture [CA] as relevant, and underscored the need to address climate adaptation and mitigation measures in the agricultural sector to improve food security and minimize land degradation. Implementation arrangements also seek to contribute to objectives of the climate change National Adaptation Plan of Action [NAPA], which are within Agriculture Sector Development Strategy and Investment Plan [DSIP]. The project intends to use lessons learnt to inform policy and strengthen decentralized governance mechanisms and institutions and practices that empower local governments and Civil Society Organizations [CSOs] in CSA and climate change adaptation and mitigation.

This project thus focuses on enhancing productivity of land through sustainable land management of soil and water resources, particularly integrating CSA as a climate change adaptation strategy to build climate change resilient societies. The intention is to promote CSA practices in five target districts, putting in place measures/systems to improve input supply, develop produce markets for economic sustainability for CSA enterprises; and supporting research activities to generate baselines, monitoring and evaluation guidelines and national recommendations on CSA technologies and practices. From a broader perspective, the project will contribute to development of a national CSA strategy as contribution to the Comprehensive Africa Agricultural Development Programme [CAADP] agenda, to the current Uganda National Development Plan [NDP] and the DSIP.

The Project Document [ProDoc] covering the period 2014-2015 was signed by Government, UNDP and COMESA in 2014, following pilot implementation of activities by MAAIF; and full project implementation began in July 2014. The project was scheduled to end on 31 December 2015, but now has been granted three months no-cost extension.

**Project Delivery**

The total project budget is US $740,000 provided by COMESA. So far the project has delivered US $634,000.

**Co-Financing**

As per ProDoc, there was no commitment of co-financing by any agency. However, UNDP chipped in some budget and paid the salaries of PMU staff, rent for PMU, and MAAIF and the Local District Governments [LDGs] provided in-kind contribution in the form of staff time and vehicles for the implementation of project activities. The total in-kind and cash contribution of UNDP, MAAIF and LDGs was calculated to be US $700,114, which is almost equal to funds provided by COMESA.

**Achievement**s

* 1,250 acres of land put under CSA practices by farmers and 150 acres by schools [total 1,400 acres].
* Provided seed, fertilizers and herbicides to 1,250 farmers [689 women and 561 men] to establish 625 demonstration plots each with one acre of beans and one acre of maize.
* 200 sets of rippers were distributed among farmers - use of hand hoes to establish basins in one acre takes 3 person days, whereas the oxen driven rippers make necessary tillage up to 15 acres in the same time.
* 5 agro-forestry nurseries, each with capacity of 20,000 tree seedlings saplings per season established in 5 districts. The plants were then distributed among farmers for plantation.
* 30 schools were supported to acquire inputs and assorted tools to facilitate CSA practices. 600 pupils [250 girls and 350 boys] were introduced to CSA; intra-district competitions were organized among pupils; each school established 5 acres of crop [maize and beans using CSA practices].
* 60 farmer champions [38 women] undertook voluntary training of farmers, each farmer in turn trained 8 farmers [total 482 farmers of which 212 were women].
* 16 farmers’ groups each with 20-25 members [50% women] were given grants to facilitate acquisition of CSA tools, equipment, seed, agro-forestry trees and in some cases oxen for distribution among members.
* 16 group demonstration plots were established to enhance learning and testing grounds for improved productivity.
* 3 cooperative societies [Magada Multipurpose Cooperative Society-Namutumba, Bulange Multipurpose Cooperative Society and Namutumba and Mwizukulu Growers Cooperative Society in Budaka] formed and registered with the Ministry of Trade, Industry and Cooperatives. Thirteen other farmer organizations are in the process of forming cooperatives.
* A total of 320 people were trained in CSA technology/practices. These included 160 farmers [80 females and 80 males] and 160 district level technical persons from agriculture and finance departments [35 females].
* 4,000 farmers [2,880 males and 1,120 females] were provided with Pardue Improved Crop Storage [PICS] bags to reduce post-harvest losses due to pests.
* Baseline report on CSA was conducted; monitoring and evaluation methodologies for CSA were developed; and recommendations for the consideration of MAAIF and LDGs were developed and shared with all the stakeholders.
* District level coordinators were provided with a computer set, internet connection, one motorcycle and 200 bicycles to farmers to farmers in each district to enhance their mobility as an incentive to promote CSA.

**Evaluation Rating**

Based on the progress achieved as reported by the project, assessment made by the mission through conducting interviews with the project stakeholders and undertaking field visits, the mission made the following ratings:

**Table 1. Evaluation Ratings for the Development Objective, Outcomes, Relevance, Efficiency, Effectiveness, Sustainability, Impact and Monitoring and Evaluation.**

| **S. No.** | **Area** | **Rating Scale****[1 lowest]** | **Rating Awarded** | **Remarks**  |
| --- | --- | --- | --- | --- |
| 1 | **Development Objective:** Contributing to the national target of having 250,000[[1]](#footnote-1) hectares of land under conservation agriculture by 2016, and to develop the National CSA Strategy. | 1-6\* | 6 | The project has been instrumental in training several hundred farmers and establishing demonstration plots on farmers’ fields and 30 schools. CSA has been demonstrated at 1,400 acres on farmers’ fields and primary schools. The mobility of farmers and extension workers has been enhanced by providing bicycles and motorcycles. 15 farmers’ groups have been established to access grants from donors; hundreds of ToTs have been trained to further impart training; capacity of district governments has been enhanced. The project is likely to be further up-scaled by the communities and schools by themselves and contribute towards developing CSA strategy, CAADP and Uganda National Development Plan. |
| 2 | **Outcome 1:** Support scaling up of CSA practices in five districts of Uganda. | 1-6\* | 6 | The project has set up a good model of scaling up. The farmers and pupils in schools have become change agents and they are by themselves undertaking applied research trials. Some school administration have reduced on the costs for feeding or are no more collecting fee from parents for school feeding program. Good example are: Buteba Baptist Primary School, Busia district and Bulange Teffe Primary school, Namutumba district, where CSA model is being replicated. In Busia district, Kanyoro, Buteba and Amonikane Primary schools have also copied the CSA model from Buteba Baptist Primary School. The yield of maize is at least 5-6 times higher in CSA plots and may increase with use of rippers. The additional earnings by farmers is being used for improving housing, installing solar power systems, buying of goats and boars and meeting the expenditures on health and education. |
| 3 | **Outcome 2:** To put in place support measure/systems to improve input supply, produce markets and economic sustainability measures for climate smart agriculture enterprise. | 1-6\* | 6 | The input supply and output sale has been much organized; the farmers’ groups place collective supply orders to the traders and are in a position to negotiate better market price for the produce. The farmers collect money for the purchase of inputs and send that to suppliers through mobile money, who in turn supply them the required items. Collective marketing system to promote CSA is well in place. |
| 4 | **Outcome 3:** To support research activities to generate baselines [biophysical and socioeconomic characteristics], develop monitoring and evaluation guidelines and produce national recommendations on CSA technologies and practices. | 1-6\* | 6 | Project has produced a very good baseline report and has produced several monitoring and evaluation reports whereby, highly informative reports of all the trainings held are available. Several exchange visits were organized and MAAIF was instrumental in monitoring the progress. CSA Monitoring system has been established and recommendations developed for the consideration of LDGs and MAAIF. |
| 5 | **Efficiency:** was the project implemented in an efficient and cost-effective manner. | 1-6\* | 5 | The project was implemented in an efficient and cost-effective manner. Inception meeting was held and procurement of inputs was through UNDP competitive procurement system. In a short period of a few months, the project produced tangible results. |
| 6 | **Effectiveness**: to what extent project objectives have been achieved. | 1-6\* | 6 | The project has fully achieved its objectives. The project has put in place a system which could be scaled up with additional donor, government and community funds. It is highly likely that farmers and schools will continue to replicate CSA on their own. |
| 7 | **Monitoring and Evaluation** | 1-6\* | 5 | The project has produced very informative M&E and back to office reports of every visit and reports of all the training events held. A monitoring and evaluation system for CSA has been developed which could be adopted by LDGs, MAAIF and farmers. |
| 8 | **Relevance** | 1-2 | 2 | The project is highly relevant to the needs of target groups/categories [small or large holders] and has been highly taken on as an approach for adapting to climate change. It plays a significant role in enhancing food and nutrition security, building resilience to climate change and its effects as well as mitigating climate change. It is likely to be emulated in other parts of Uganda and region. |
| 9 | **Sustainability** | 1-4 | 3 | The project is sustainable from social, technical, institutional and environmental point of view. The CSA technologies/practices demonstrated have been accepted and adopted within the community in a short period of time. There is institutional support at national and local level as well as private sector. It is anticipated that farmers will continue to invest in purchase of high quality seeds as well as fertilizers and herbicides. The important input which is required is the supply of rippers [cost US $ 15 per ripper] and funds for construction of water reservoirs or for installing tubewells [diesel or animal powered] and solar tubewells. This may become a major constraint in future[[2]](#footnote-2). |
| 10 | **Impact** | 1-3 | 3[S] | The major impact is the attitudinal change of farmers, pupils, school teachers and extension workers towards the adoption of CSA. Farmers are likely to continue at their own as the crop yield is increased by 5-6 times. With the demonstrated results, further upscaling is likely to occur with a little effort. |

*\*1 = Highly Unsatisfactory 2 = project has serious shortcomings, 3 = moderately unsatisfactory 4 = moderately Satisfactory [moderate shortcomings], 5 = Satisfactory [there were only minor shortcomings, 6 = Highly Satisfactory [no shortcomings]. Relevance Ratings: 1[Not Relevant], 2 [Relevant]. Sustainability Ratings: 1 = Unlikely [severe risks], 2 = Moderately Unlikely, 3 = Moderately Likely [moderate risks], 4 = Likely [negligible risks to sustainability]. Impact Ratings: 1 = Negligible, 2 = Minimal and 3 = Significant.*

**Summary of Lessons Learned, Conclusions, Recommendations and Way Forward**

**Lessons Learnt**

* Farmers willingly adopt technologies/practices that are socially acceptable and economically viable.
* Attitudinal change always takes a long time, but since CSA technology is highly profitable, farmers and other stakeholders adopted it quickly.
* Peer to peer exchange visits and group participatory monitoring and evaluation enhances adoption of new technologies.
* Youth/school-pupils provided with the knowledge and skills of CSA can be used as change agents within the communities.
* Motivation of extension workers/ToTs is important in the success of the project.
* Multi-ministerial and sectoral approach builds synergies in project implementation and enhances project success rate.
* Using district government structures in project implementation is cost effective and enhances sustainability.
* CSA model is a good case for new scaling up regional project.

The project encountered several teething problems; therefore, the implementation rate was slow in the beginning. However, the project has produced impressive results, though no work has been done on production of knowledge products. The Project Board realized that the proposed targets in the ProDoc were too ambitious as a proper input supply system has to be put in place, farmers have to be trained and seedlings have to be grown for providing to the farmers. Consequently, the Project Board reduced the target to promotion of CSA on 1,500 acres instead of 15,000 acres, which was a good decision. The project talks about social change towards CSA, which always takes a long time, and it was impossible to achieve the outcome target of practicing CSA on 15,000 acres ass given in the ProDoc in two seasons. Weather uncertainties played their due role and some farmers reported that their crop suffered due to drought and other times due to floods, which require proper early warning and forecasting system for agriculture. In fact, the project has established very convincing pilots [1,250] which could be further scaled up with community contribution. Overall the mission recommends a rating of 6 [highly satisfactory].

At the district level, the project experienced weak support from the Agricultural Extension staff as there is only a few staff on payroll to cover a large population. For example, in Namutumba district there are 4 agricultural extension workers, while in Budaka and Buyede there is only one. The accounting system of districts is too weak and it took a long time to disburse micro-grants to farmers’ groups. At the macro-level, there was no encouraging enabling policy framework. For example, in Uganda there is no seed policy and a system to ensure the quality of seeds, herbicides and pesticides. Micro-credit is expensive [up to 48% interest rate per annum], high taxes on steel which makes local manufacturing of rippers costly and no mechanism by the Government of Uganda [GoU] for support price to farmers and purchase of grains from smallholders, thus the farmers are left at the mercy of traders. During FGDs, several farmers reported that the quality of seeds provided by the suppliers was very poor, and it will continue to pose a problem until the GoU does not establish a strong seed quality standards and monitoring system. Under such constraints, the achievement of outcome target [promoting CSA on 1,500 ha] was an impressive achievement. This is a major contribution of the project towards enhancing crop productivity and soil health, and at a broader level towards the development of CSA strategy, Comprehensive Africa Agricultural Development Plan, and Uganda National Development Plan. The model could be further scaled up at the national and regional level with a little effort.

 **Recommendations**

1. In the last quarter of the project life, NARO should collect data against the indicators of CSA in the project district, which would partially serve as end-line survey as well as baseline for future scaling up.
2. The project should include community cash contribution [at present in the form of land and labor] in future as explained in detail in Section 7 to break dependency syndrome.
3. The project should interact with the seed, fertilizer and herbicides / pesticides companies, and urge them to provide inputs to the participating farmers for establishing more number of plots, which could serve as demonstration for other farmers. The private sector companies always do that. Further, there is a need to link farmers with the finance service providers for availability of credit for inputs.
4. It was learnt that in some schools, the gardens have given so much produce that now the school administration has stopped collecting fee from parents for school feeding program. Since it is an extremely good example of sustainability, it is recommended that the school administration should urge parents to contribute funds for the purchase of seeds and fertilizers to support gardens in school. It will be a relatively less burden on parents, and they may like to participate in this programme.
5. The Ministry of Education should consider CSA as a major intervention, as has been demonstrated in 30+ schools. The pupils are serving as agents of change and they are convincing their parents to follow CSA. The Ministry should include CSA in curricula at all levels, and as a policy directive advise all the schools to establish CSA gardens in schools to supplement school feeding program, and provide funds for the supply of inputs.
6. In future the project or MAAIF should interact with the Ministry of Internal Affairs to support promotion of CSA on prison farms. REDS is already working with seven such farms. The same could be practiced on other institutional farms.
7. UNDP and MAAIF should work with UN World Food Programme and UNICEF to support school feeding program by providing inputs for CSA to further upscale programme.
8. Under the new project [or during extension of this project, if it happens], UNDP/MAAIF should continue to provide training and equipment [rippers, knapsack sprayers and other agricultural equipment] to the farmers and schools as these are costly items to afford by the poor farmers. In fact, a pool of equipment could be established for each farmers’ group from where other farmers could get the equipment on rental basis. The amount accrued from rental could be used for the maintenance of equipment.
9. In the remainder duration or under the new project, support for beekeeping should be provided to the interested groups to address the pollination issues, which are likely to arise due to use of pesticides.
10. In the remaining project time, the project should explore the potential of medicinal and herbal plants in project districts, through a special study, and consider including it in new projects to diversify farm income and agricultural biodiversity considering it as a component of CSA.
11. Any progress made towards water harvesting and conservation in drylands is a major contribution to improving livelihoods and CSA. Water resource development is a major intervention of CSA. PMU has a considerable experience of supporting communities to construct water reservoirs under EESLM project. The practice should be continued in this project as well to address the issues of water shortages, or by providing, animal or power driven water pumps or solar tubewells on cost-sharing basis.
12. The mission recommends that the project should immediately develop information and communication materials in English and local languages documenting the success stories of what communities could do while together, and other technical information that is required for replicating models so that other neighboring communities and districts could also follow and benefit. The project should also develop radio programmes and short SMS messages for broadcasting technical information for replication purposes and arrangements be made with radio stations and cellular companies to disseminate information.
13. The mission recommends that MAAIF should immediately work with the Meteorological Authority and arrange to provide agricultural forecasts to member farmers and schools through SMS alerts. It is more important for CSA project as farmers will be using costly seeds, and there need to be some insurance system to protect the interest of farmers.
14. MAAIF, UNDP, FAO and WFP to work with the GoU to formulate seed policy, standards for agricultural inputs [seeds, fertilizers, pesticides], support NARO to continuously develop new climate smart varieties, establish seed corporation to multiply seeds for supply to not only Ugandan farmers but to other neighboring countries, establish support price mechanism to support small holders and maintain certain quantity of grain reserves for Uganda and other countries in the region. UNDP in its capacity as a UN coordinating agency should take a lead role in policy development.
15. The present project is a good case for scaling up at the national and regional level. UNDP and MAAIF to formulate a new project for five years to promote CSA in Uganda. With additional support from COMESA, DFID, EU, USAID, private sector, etc., the project could be a regional project covering several neighboring countries.

**Way Forward**

During short period, the project has shown impressive results. This was a time to scale up but unfortunately, the project is closing on 31 March 2016. The mission recommends either extending the project or replacing it quickly with a new one to scale up CSA in Uganda. Since COMESA is one of the partners of project, it is a good case for a regional project. For the remaining period, the recommendation given earlier should be implemented.

1. Source: Uganda Strategic Investment Framework on SLM [USIF] 2010-2020. [↑](#footnote-ref-1)
2. *The Mission Leader implemented a major project of CSA in rice-wheat cropping system in Pakistan, starting from one acre demonstration plot which has been scaled up to more than half a million acres in Pakistan, besides India and Nepal. The key input was the provision of a planting drill, the cost of which was about US $5,000. Local manufacturing was encouraged and now interestingly, the drill is manufactured in Pakistan at a cost of less than US $600. This single intervention resulted in scaling up of the CSA in rice-wheat and wheat-cotton cropping system. In another project, the reason of rehabilitation of degraded land was the provision of rippers to open up hard-pan of soil and provision of diesel-powered water pumps [small size] to farmers’ groups [www.drinayat.com].* [↑](#footnote-ref-2)