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Project evaluation series

Final Evaluation of the Global Climate Change Alliance (GCCA) – Uganda: Agricultural Adaptation to Climate Change project

May 2017

PROJECT EVALUATION SERIES

**Final Evaluation of the Global Climate Change
Alliance (GCCA) – Uganda:
Agricultural Adaptation to Climate
Change project**

**FOOD AND AGRICULTURE ORGANIZATION OF THE UNITED NATIONS
OFFICE OF EVALUATION**

May 2017

Food and Agriculture Organization of the United Nations

Office of Evaluation (OED)

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The information provided by the stakeholders to the evaluation team has been crucial for understanding the project context, informing the assessment and for developing recommendations for the future.

Composition of the evaluation team

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Acronyms and abbreviations

CCA	Climate Change Adaptation
DLG	District Local Government
FAO	Food and Agriculture Organizations of the United Nations
FFS	Farmers Field Schools
FGD	Focus Group Discussion
GCCA	Global Climate Change Alliance
MAAIF	Ministry of Agriculture, Animal Industry and Fisheries
MWE	Ministry of Water and Environment
NGO	Non-governmental Organization
VSLA	Village Savings and Loan Association

Executive Summary

Background

- ES1 This report presents the results from the final evaluation of the project GCP/UGA/041/EC, titled "*Global Climate Change Alliance (GCCA) – Uganda: Agricultural Adaptation to Climate Change*", a four and a half-year initiative funded with EUR 14 million by the European Union, the Irish Government and the Royal Kingdom of Belgium through the project GCP/UGA/041/BEL. The project was implemented by the Food and Agriculture Organization of the United Nations (FAO) in collaboration with the Ministry of Water and Environment (MWE), the Ministry of Agriculture, Animal Industry and Fisheries (MAAIF), District Local Governments (DLGs) from the six central cattle corridor districts, as well as national and international partners.
- ES2 The project contained three main components with the following intended outcomes: i) improved knowledge and capacities for climate change adaptation (CCA); ii) better access of livestock and crops to water through water for production; iii) increased resilience of agricultural production systems in the cattle corridor. At both national and sub-national levels, the project focused on six districts in the central cattle corridor: Nakasongola, Luwero, Nakaseke, Kiboga, Mubende and Sembabule.

Evaluation purpose, scope and methodology

- ES4 The main purpose of the evaluation was to provide accountability to donors and key stakeholders; inform project management on achievements, challenges and lessons learned; and provide recommendations for the design of a potential second project phase. The evaluation was carried out between October 2016 and February 2017. It covered the entire project implementation period (from June 2012 to January 2017) and the six districts in the central cattle corridor where the project was implemented. The evaluation focused mainly on the outcome level, as progress against activities and outputs was already presented in the Mid-Term Review (March 2016). The evaluation also looked into cross-cutting aspects such as gender, youth, partnerships and sustainability.
- ES6 A mixed method approach was applied by the evaluation team, combining quantitative data (i.e. surveys) and qualitative information (i.e. desk review, focus groups discussions, semi-structured interviews, household visits and field observations). Primary data was collected by the team during a two-week field work mission to Uganda. The team met approximately 350 persons across the six districts from the cattle corridor and from Kampala, and visited over 15 intervention sites. The qualitative methods applied to the selection of participants and sites were based on purposeful sampling strategies, while the selection of respondents to the survey was based on probability sampling.

Main findings

- ES7 The project was instrumental in strengthening the institutional capacity, knowledge and practices for CCA at different levels in the country. Major achievements were identified in relation to Uganda's participation in climate change fora at the international, national, parliamentary, ministerial, local government and farmer levels. The evaluation team found a high level of awareness of climate change, its manifestation and consequences, and what is required of stakeholders at different levels in order to appropriately respond to its most adverse effects.
- ES9 The evaluation team found indications that the project has contributed to an important move toward the resilience of agricultural production systems. Due to the uptake of climate smart crop cultivation, farmers are growing different types of fruits and vegetables throughout the year, as well as increasing their incomes by selling their products. Farmer field school (FFS) beneficiaries indicated that targets on adopting new practices were met for most of the new low-cost practices introduced, in particular around the demonstration plots. There was

lower uptake, however, of practices that required land ownership or start-up capital. The uptake of knowledge has been highest among coffee nursery operators and cattle farmers improving their pastures. However, uptake was still slow among vegetable gardeners and banana producers, where production is primarily intended for own consumption, and where sale is an option only when there is a perceived surplus. Although the uptake of knowledge among mushroom producers was high, challenges such as the high cost of spawn and lack of starter capital prevented them from improving their outcomes.

- ES11 A total of 15 new valley tanks were constructed and five existing tanks rehabilitated through the project. The enhanced opportunities provided unfettered access to water for livestock production, whether as a private good or a common property resource, and are starting to result in both increased livestock production and the diversification of pastoralists' enterprises focused on the livestock value chain – especially milk and milk-based products. Increased availability of and access to water for crop farming has made it possible for beneficiary communities to more easily adopt climate smart crop cultivation. As a result, not only has production increased, but small-scale irrigation systems have also been adopted and extensive cultivation of different types of crops undertaken year-round in places where this was previously considered untenable.
- ES13 There were some indications that the project is likely to improve food security, nutrition and livelihood conditions. The project has also contributed to establishing Village Savings and Loan Associations (VSLAs) among FFS groups. The resulting access to loans from the VSLAs was a major contributing factor to increased production and productivity levels during the project period. Likewise, the project led to an increase in the land area covered by tree vegetation, which has a positive impact on the micro-climate in those areas with bio-energy plantations; moreover, beneficiaries have acquired the skills to establish and manage tree nurseries and tree planting as private business enterprises.
- ES17 **Gender and vulnerable groups.** Although the project formulation and implementation has considered equity in the access to knowledge, capacity and investments, it did not initially address gender equality and gender empowerment as a result. This concern only came into attention in 2014, when a gender analysis was conducted and specific activities were designed to promote these results at national and district level. Afterward, women have progressively become more committed than men to attend FFS and implement the practices learned. Positive gender results were observed particularly in relation to the coffee production activities, where men and women are now sharing planning and working tasks more equitably, both in the field and within their families.
- ES19 Focus group discussions (FGDs) within beneficiary communities indicated that enrollment of kids into school had increased and the nutrition status among children improved due to increased income among many beneficiary farmers. On the other hand, although youth have been welcomed to participate and benefit from the project activities, the project design and implementation did not provide specific support to engage youth in agriculture. The same relates to illiterates and people with disabilities.
- ES20 **Partnerships, ownership and sustainability.** The GCCA project has successfully applied different mechanisms for the selection of project partners based on comparative strengths and their particular role in the project. At the same time, the project has successfully demonstrated how complementary donor funding and partner diversification can lead to establishing new partnership alliances across sectors and among public-private institutions. On the other hand, planning and coordination of interventions among project partners has not always been smooth, resulting in less effective support to FFS communities.
- ES21 The GCCA project supported the development and implementation of key institutional, policy and legislative frameworks to sustain the initiated climate change processes within ministries, DLGs and at community level. However, some of the more recently implemented project activities (e.g. the knowledge management system, FFS networks) have not yet created sufficient ownership and will need to be supported further.
- ES22 To some extent, FFS implementing partners have taken ownership for follow-up trainings and demonstrations within FFS communities; however, this will not be sufficient to

support a wider uptake and replication of new practices. A more systematic planning and preparation for post-FFS scenarios will be needed.

Conclusions and recommendations

Conclusion 1: The GCCA project was well-designed and highly relevant in terms of approach, geographical focus, partner selection and topics introduced. The project has served as an important “laboratory” for simultaneous testing of innovative elements linked to CCA within an FFS approach (e.g. livestock, coffee, mushroom, bio-energy plantations and public-private partnerships), supported by appropriate institutional and financial arrangements and access to water. The majority of these experiences have provided positive results, although there is a need for adjustments and continued follow-up/ support within some areas.

Conclusion 2: The project made an important contribution by highlighting Uganda’s position among the leading countries in Africa undertaking CCA and building resilience. A number of positive socio-economic developments have started to materialize within beneficiary communities, and there are signs of improvement in the resilience of agricultural production systems in the cattle corridor. Support for strengthening the institutional framework has been effective, although capacity gaps remain.

Conclusion 3: The project has contributed to partnership development (including public-private partnerships) and building of alliances. The project funding provided by the European Union and Belgium presents an excellent example of alignment and complementarity within donor funding. Although the project has benefitted from having locally represented implementing partners on board, more could be done to ensure better coordination and planning of interventions among the various partners involved.

Conclusion 4: Recently, the project has actively promoted gender equality in the access to knowledge and capacities aimed at increasing resilience to cope with climate change. Positive results have started to emerge and the most progress was made in relation to coffee plantations. The needs and concerns of vulnerable groups like youth and children were addressed by the project indirectly.

Conclusion 5: The project has contributed to increased ownership and mainstreaming of climate change planning and coordination processes within key public sector institutions, and provided a useful framework for continued development within this area. On the other hand, there was limited strategic consideration on sustainability issues (i.e. wider replication and post-project uptake of practices) in relation to the FFS support. Going forward, additional and complementary support will be required to sustain the production increases resulting from the project support, as well as some recently implemented network activities.

Recommendations were based on the findings and conclusions as follows:

Recommendation 1: The evaluation team recommends continuing the GCCA project support through a second phase, with continued focus on capacity development, partnership development (including public-private-research), access to water and use of the FFS approach within the cattle corridor. Considerations should be made to include additional districts in phase 2, while at the same time consolidating results within districts supported in phase 1. Given the complexity of these interventions, the evaluation team recommends that a minimum time frame of five years should be considered for a second project phase.

Recommendation 2: Phase 2 interventions should aim to progress from raising awareness on climate change impacts to improving agriculture sector capacities to respond to climate change challenges. This should include a move from support of climate change mainstreaming across sector plans (supported in phase 1) to actual support for the implementation of these plans in phase 2. Support should be provided to roll-out and apply development sector-specific climate change indicators, as well as to develop a practical tool to assess CCA incremental costs in district planning processes. A differentiated approach for involving and supporting DLGs should be applied in phase 2, taking into account significant differences in DLG capacities and resources.

Recommendations 3: Support should be provided for the full operationalization of the water infrastructure constructed during phase 1 of the project, in order to ensure availability of an adequate amount of water to both crops and livestock in the cattle corridor districts throughout the dry season. More land should be provided around the valley tanks to establish tree woodlots and additional space for cattle holding, and more attention should be given to improving hygiene and sanitation within and around the valley tank premises. The feasibility of extracting water from permanent rivers should be tested as a pilot in at least one cattle corridor district; this would supplement the investments made in water availability using valley tanks and an array of other water harvesting technologies.

Recommendation 4: FFS should continue to be the primary implementation approach for improving resilience at community level, including support to the establishment and functioning of VSLAs, which were instrumental to the results achieved in phase 1. The evaluation team suggests the following adjustments to the FFS approach: i) a proper exit/phasing out strategy should be developed for the FFS support, including a plan for follow-up after completion of the 18-month FFS training and demonstration period; ii) clear criteria should be developed for the selection of FFS communities; iii) the list of enterprises selected for the FFS approach should be sufficiently flexible to include additional enterprise options as part of integrated resilient agriculture farming; iv) enterprise promotion should support the entire value chain for selected resilient crop and livestock projects; and v) establishment and support of FFS networks should be started early in the process rather than toward the end.

Recommendation 5: In a second project phase, a more effective platform for planning and coordination among project partners should be established. The potential for creating synergies and complementarity to the established District Climate Change Task Forces (chaired by the DLGs) should be further explored.

Recommendation 6: A more inclusive approach should be applied for the selection of participants of FFS groups. This should include conducting a more thorough assessment of the socio-economic impacts for mushroom, coffee and bioenergy interventions, with a pro-poor and vulnerability perspective. Activities designed and implemented under FFS should be directly aligned with the objectives presented under the FAO Policy on Gender Equality. Moreover, a “do no harm” assessment should be carried out before and during implementation to mitigate potential socio-economic effects resulting from increased household workloads, or any other conflicting issue that may arise during implementation (e.g. child labour).

1. Introduction

1.1 Purpose of the evaluation

- 1 This report presents the results of the final evaluation of the Global Climate Change Alliance (GCCA) project in Uganda, carried out between October 2016 and February 2017 across six districts: Nakasongola, Luwero, Nakaseke, Kiboga, Mubende and Sembabule.

1.2 Intended users

- 2 Considering the objectives of the evaluation, this document is intended to target the following actors as key users: project management and other colleagues from the Food and Agriculture Organizations of the United Nations (FAO) Uganda; current donors (European Union and the Kingdom of Belgium) and potential donors for subsequent phases of the project; implementing partners who participated in the project design and implementation; the Ministry of Water and Environment (MWE), and Ministry of Agriculture, Animal Industry and Fisheries (MAAIF); District Local Governments (DLGs) from Nakasongola, Luweero, Nakaseke, Kiboga, Mubende and Sembabule; and any other party interested in knowing or learning from the project.

1.3 Scope and objective of the evaluation

- 3 The evaluation covered the entire project implementation period (from June 2012 to January 2017) in the six districts in the central cattle corridor where the project was implemented. The evaluation focused mainly on the outcome level, as progress against activities and outputs was already presented in the Mid-Term Review (March 2016). The evaluation team also looked into cross-cutting aspects such as gender, youth, partnerships and sustainability. Aspects of complementarity and synergy between GCP/UGA/041/EC (the European Union funded component) and GCP/UGA/041/BEL (the Belgian funded component) were assessed and addressed in the evaluation report¹.
- 4 The evaluation has two main objectives: (i) assessing achievements and contributions toward the project's main goal, which was to *"strengthen the resilience of rural populations and agricultural production systems in the central part of the cattle corridor and build the capacity of communities, commercial farmers and the Government of Uganda to cope with climate change"*; and (ii) identifying opportunities and challenges for subsequent phases or similar projects under the GCCA programme or within the cattle corridor region.
- 5 To assess the purpose, scope and the objectives, the evaluation was designed to answer the following questions:
 - What were the results of the GCCA project interventions?
 - To what extent has the project built partnerships?
 - To what extent have gender mainstreaming and support to the most vulnerable groups been embedded in the project interventions?
 - To what extent has the project created ownership among stakeholders, government and beneficiaries?

A fifth question was related to the learning from project phase 1 in view of the possibility of a second project phase.

¹ In September 2013, the Royal Kingdom of Belgium and FAO Uganda signed a two-year agreement to implement a complementary set of activities in support of the GCCA project framework. This project (GCP/UGA/041/BEL), titled "Agricultural Adaptation to Climate Change in the Central Cattle Corridor, Uganda", was aimed at strengthening the outputs, activities and strategy of the GCCA project for greater impact and sustainability.

- 6 To support these evaluation questions, sub-questions were developed and presented under an evaluation matrix (see Annex 2).

1.4 Methodology

- 7 **Evaluation standards and principles.** The evaluation adhered to the United Nations Evaluation Group's Norms & Standards² and was aligned with the Office of Evaluation's manual and methodological guidelines and practices. The evaluation also adopted a consultative and transparent approach with all relevant stakeholders throughout the evaluation process.
- 8 **Data collection.** A mixed method approach was applied by the evaluation team, combining quantitative data (i.e. surveys) and qualitative information (i.e. desk review, focus group discussions (FGDs), semi-structured interviews, household visits and field observations). To answer the four evaluation questions, the evaluation team reviewed a large selection of secondary data comprised of project documents and reports (Annex 3). Primary data was collected by the team during a two-week fieldwork mission to Uganda.
- 9 Field work in Uganda took place between 5 and 17 December 2016, and most of the data collected came from focus group discussions and in-person interviews. The team met approximately 350 persons across the six districts from the cattle corridor and from Kampala (Annex 4), and visited over 15 different intervention sites. The qualitative methods applied to the selection of participants and sites were based on purposeful sampling strategies, while the selection of respondents to the survey was based on probability sampling.
- 10 **Interviews.** Semi-structured in-person interviews were conducted with project management, the FAO Representative, implementing partners, government staff from MWE, MAAIF and DLG, donors and other key informants in the six districts³. All interviews were supported by an interview protocol.
- 11 **Focus group discussions.** 30 FGDs were conducted in the six districts with beneficiaries at the community, DLG management and staff levels, as well as implementing partners (between eight and 16 participants per group). The discussions with beneficiaries were organized according to the type of intervention received (e.g. farmer field schools (FFS) or water systems for coffee production). The evaluation team ensured that both women and youth were well represented in the discussions (about half of the participants were women and 10% were youth), and also promoted discussions with six groups formed only by women and by youth⁴ (three of each).
- 12 **Field observation and household visits.** The team visited at least two sites related to each type of intervention (i.e. valley tank, small-scale irrigation system, FFS demonstration site, bioenergy plantation, watershed rehabilitation, water harvesting structures, coffee nurseries, coffee farms and mushroom plantation). Some of the visits occurred at household level (e.g. mushroom production and irrigation systems). In both cases, the team held discussions with the community and the families who were in or around the sites.
- 13 **Online survey.** To assess the component on capacity development, an online survey⁵ (Annex V) was sent to staff from DLGs, implementing partners and governmental institutions who had received any type of climate change adaptation (CCA) training from the project, and had an available email account (80 in total). 51 persons responded to the survey, which aimed to assess the project's contributions to institutional and individual knowledge and abilities in areas such as climate change and gender.
- 14 **Data analysis.** The evaluation team made a great effort to triangulate all of the data reviewed, based on both documents and data collected from the field. A strengths,

2 <http://www.uneval.org/document/detail/21>

3 The ET interviewed at least two representatives of each institution or organization at national and district levels.

4 Some participants were also part of the mixed FGD, so the ET could assess their answers within different environments.

5 Survey Monkey platform.

weaknesses, opportunities and threats framework⁶ as well as the five capitals approach⁷ were used as conceptual frameworks for the data analysis. The project was evaluated against the outputs and outcomes defined under the project result chain, which were later validated under the theory of change, and developed in tandem with key stakeholders as part of the evaluation process (section 2.2).

- 15 **Stakeholder engagement.** The key stakeholders were mapped by the evaluation team before the field mission and listed as part of the data collection (mainly through interviews and focus group discussions). During the field mission, the evaluation team conducted a one-day workshop in Kampala to develop the theory of change through a participatory approach. Project management, implementing partners and other key stakeholders attended this activity. By the end of January 2017 and before the evaluation report was completed, the evaluation team presented the preliminary findings to the project management in Kampala. A draft report was circulated among partners and stakeholders, and the feedback from these consultations are reflected in this report.

1.5 Limitations

- 16 Due to limitations in time and resources, the field work mission only allowed the evaluation team to cover a limited number of the interventions implemented in each district. Purposeful sampling strategies were used to mitigate this limitation⁸. Since the districts present regional and socioeconomic similarities, by using quota sampling the team selected the type of intervention to focus on in each district, assuming that results would show a high degree of similarity across the districts.
- 17 For some focus groups, it was not always possible to ensure that all criteria for the selection of participants were met.

1.6. Structure of the report

- 18 This report is divided into the following sections: (i) background and context of the project; (ii) key findings related to each of the evaluation questions; (iii) conclusions; and (iv) recommendations.

6 SWOT is a widely used strategic planning tool, useful also in the assessment of development interventions, to canvass their strengths and weaknesses, as well as future perspectives. It is particularly used in focus groups, but it can be adapted to individual interviews as well.

7 <http://orton.catie.ac.cr/repdoc/A10913i/A10913i.pdf>

8 Sampling strategies applied for qualitative methods which are used to select in-depth and information-rich case studies.

2. Background and context of the project

2.1 Context of the project

- 19 Since 1960, Uganda has been severely affected by climate change. The effects of the annual increase in the temperature can be seen in the form of changes in the rainfall patterns, which causes unpredictable and intense weather events such as droughts, floods and landslides⁹. This scenario presents a major challenge to agriculture in the country due to its effects on the basic elements of food production: soil, water and biodiversity¹⁰.
- 20 Climate change effects such as water scarcity and poor soil fertility are obstacles to livestock, forestry and crop growth. As a consequence, people who are dependent on agriculture, which represents the majority of the population in Uganda, are more likely to face food insecurity and poverty¹¹. Due to issues such as limited options of livelihoods, lack of support to CCA actions and limited knowledge of CCA options, Uganda's capacity to adapt to the impacts of climate change is low.
- 21 As stated in the Ugandan National Development Plan 2010 – 2015, the *"sustainable economic and social development of Uganda largely depends on exploitation of its environmental and natural resources, including climate. However, the increasing degradation of these resources coupled with increasing climate variability and climate change is beginning to have a serious negative impact on Uganda's social and economic development and the livelihoods of millions of its people"*¹².
- 22 The Country Support Strategic Framework 2010 – 2014 incorporated climate change as a cross-cutting issue in four out of its five priority areas¹³. Essentially, building government and farmers' capacities to cope with the effects of climate change was introduced in Uganda through FAO's agenda.
- 23 Under this framework and considering that the cattle corridor, which is dominated by livestock production, is the most affected region in the country by climate change effects, the GCP/UGA/041/EC was launched in June 2012.
- 24 GCP/UGA/041/EC, titled *"Global Climate Change Alliance (GCCA) – Uganda: Agriculture Adaptation to Climate Change"*, is a four and a half-year initiative funded by the European Union and the Irish Government aimed at strengthening the resilience of rural populations, cattle keepers and agricultural production systems in the central part of the cattle corridor, and building the capacities of communities, farmers and the Government of Uganda to cope with climate change. In September 2013 the Royal Kingdom of Belgium and FAO signed a two-year agreement to implement a complementary set of activities in support of the GCCA project framework. This project (GCP/UGA/041/BEL), titled *"Agricultural Adaptation to Climate Change in the Central Cattle Corridor, Uganda"*, aimed at strengthening the outputs, activities and strategy of the GCCA project for greater impact and sustainability.
- 25 To achieve this goal the project contained three main components – capacity development, water and resilience of agriculture production systems – which were organized in a result chain containing three intended outcomes:
- Knowledge and capacities for climate change adaption strengthened;

9 Environment Alert. 2010. Climate Change in Uganda: Insights for Long-term Adaptation and Building Community Resilience, Kampala.

10 LTS. 2008. Climate Change in Uganda: understanding the implications and appraising the response. Available at: http://reliefweb.int/sites/reliefweb.int/files/resources/7F1BF4A7CF37F6A54925756F0016ED29-Full_Report.pdf

11 LTS. 2008.

12 National Development Plan 2010 – 2015. Available at: http://www.adaptation-undp.org/sites/default/files/downloads/uganda-national_development_plan.pdf (page 315).

13 Focus area 1: strategy, policy and planning; focus area 2: production and productivity; focus area 4: agricultural knowledge, information and education; and focus area 5: sustainable resources management.

- Better access of livestock and crops to water through water for production;
 - Resilience of agricultural production systems in the cattle corridor improved.
- 26 The project ended in mid-January 2017. Although performed at both national and sub-national levels, it covered six districts in the central cattle corridor: Nakasongola, Luwero, Nakaseke, Kiboga, Mubende and Sembabule.
- 27 The total project budget was EUR 14 million (EUR 11 million funded by the European Union with a financial contribution from the Republic of Ireland, and EUR 3 million funded by the Royal Kingdom of Belgium). The project was implemented by FAO in collaboration with MWE, MAAIF, local governments from the six central cattle corridor districts, and national and international partners¹⁴.
- 28 The project's key achievements – strengthening the capacity of national and local governments, non-governmental institutions (NGOs) and farming communities for sustainable management of natural resources and climate change adaptation and mitigation – were highlighted in the new Country Programming Framework (2015 – 2019), which incorporated resilience to livelihood threats with emphasis on climate chain as a specific priority focus area for the forthcoming years.

2.2 The Theory of Change

- 29 As part of the evaluation process, the theory of change of the project was elaborated by the evaluation team in tandem with the project management, implementing partners and other key stakeholders as part of the final evaluation process, and according to the United Nations' Evaluation Group's structure¹⁵. This exercise helped to identify the main drivers and pathways as well as key assumptions, risks and challenges related to the outputs and outcomes of the project. This theory of change exercise may also be helpful to the project management in order to orientate a possible second phase of the project or similar projects.
- 30 The project contains three intended results related to different components: capacity development, water management and resilience of agriculture production systems. Even though these result areas are mutually interdependent and together contribute to the achievement of the main project goals related to food security and climate change mitigation, they comprise different activities. Therefore, in order to facilitate the visualization and the explanation of the expected change process within each results area, the evaluation team opted to present one theory of change per result area (see below). Differences and interlinks between them at both output and outcome levels are represented by colours¹⁶. Following the diagrams, a brief narrative on the intervention logic is presented.
- 31 **Overview.** The overall project intervention logic is as follows:
- **Result Area 1.** National central government institutions (i.e. MAAIF, MWE and parliament), DLGs and implementing partners receive training and awareness raising to develop their capacities on CCA, including water provision and agriculture practices, as well as in other relevant topics such as gender equality. As a result, they are expected to apply this new knowledge in their daily work. The outputs and outcomes achieved under this result directly influence outputs and outcomes under results two and three (green).
 - **Result Area 2.** Fifteen new valley tanks are constructed and five existing valley tanks rehabilitated. The project also provides medium- and small-scale water systems, as well as small-scale irrigation systems to support communities with access to water for production. Trees are planted to restore watershed and the government (MWE) receives support to mainstream CCA within its departments. As a result, project beneficiaries and

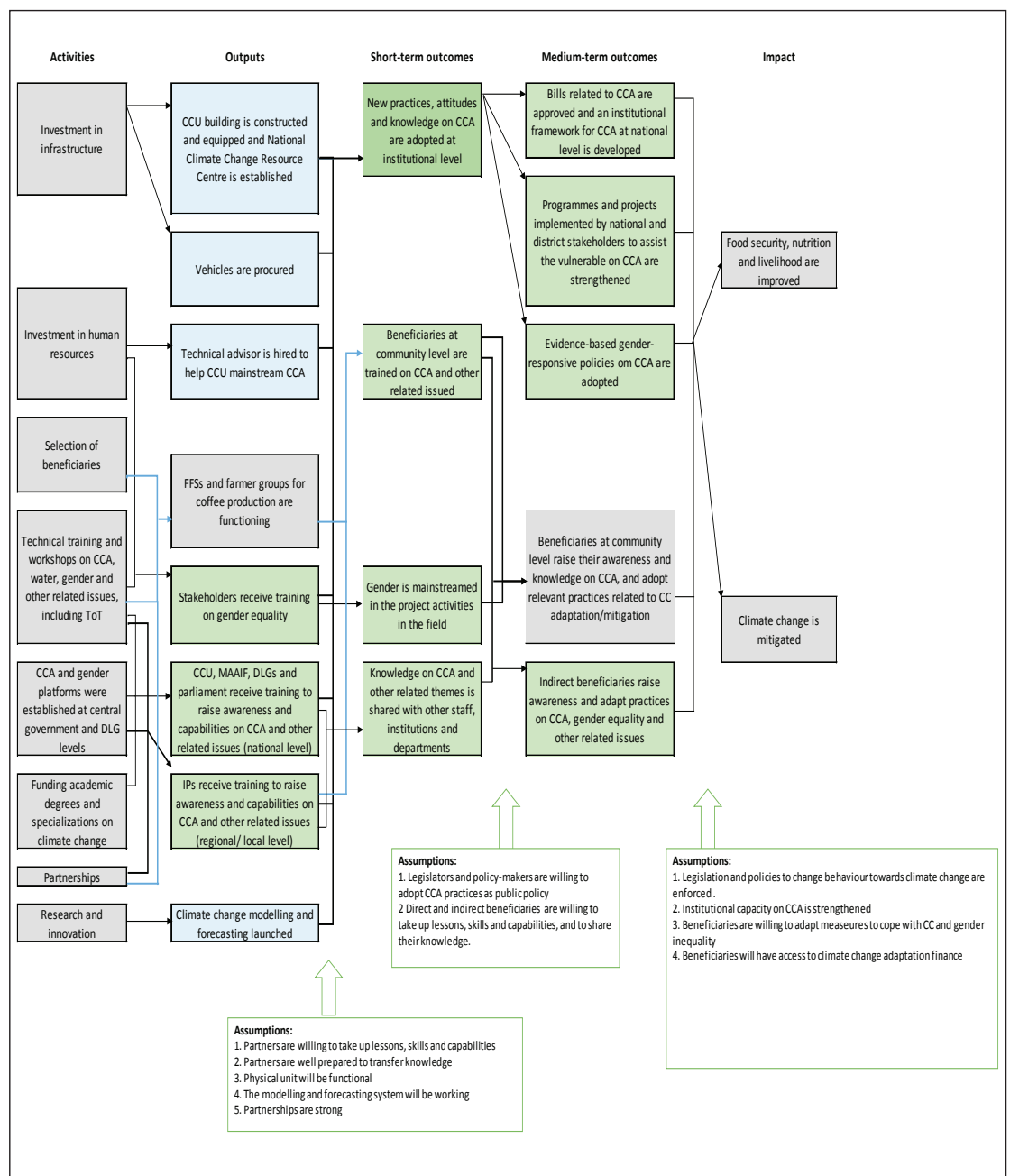
14 The Hunger Project Uganda; Sembalule and Nakasongola District farmer's Association (SEDF/ NADIFA); Lutheran World Federation; Caritas Kasanaensis; Community Care for Development (C-Care Uganda); JB International; Makerere University; National Livestock Resources Research Institute (NALIRRI); Mukono Agriculture Research and Development Institute (MUZARDI); Hanns R. Neumann Stiftung Africa (HRNSA)

15 <http://www.uneval.org/document/detail/1484>

16 Grey: common to the three ToCs; blue: exclusive for R1; yellow: exclusive for R2; orange: exclusive for R3; green: contributes to R2 and R3 simultaneously.

other community members will have access to water to grow crops and keep cattle and poultry in a sustainable manner.

- **Result Area 3.** Through the FFS approach, implementing partners train selected beneficiaries in various CCA practices, including agriculture diversification (e.g. coffee production, mushroom production and sustainable energy stoves). The project also provided tools to support the beneficiaries in the implementation of the practices learned. Farmer networks are established, to facilitate easier access to markets for the farmers. Gender is mainstreamed throughout the entire process. As a result, beneficiaries will be able to grow a variety of crops and to keep cattle and poultry in a sustainable manner. They will consume part of their production and sell the surplus, thereby increasing their financial capital.
- As a result, the combination of the three theories of change contributes to the main goals of mitigating the adverse effects from climate change and improving farmer's food security, nutrition and livelihoods.

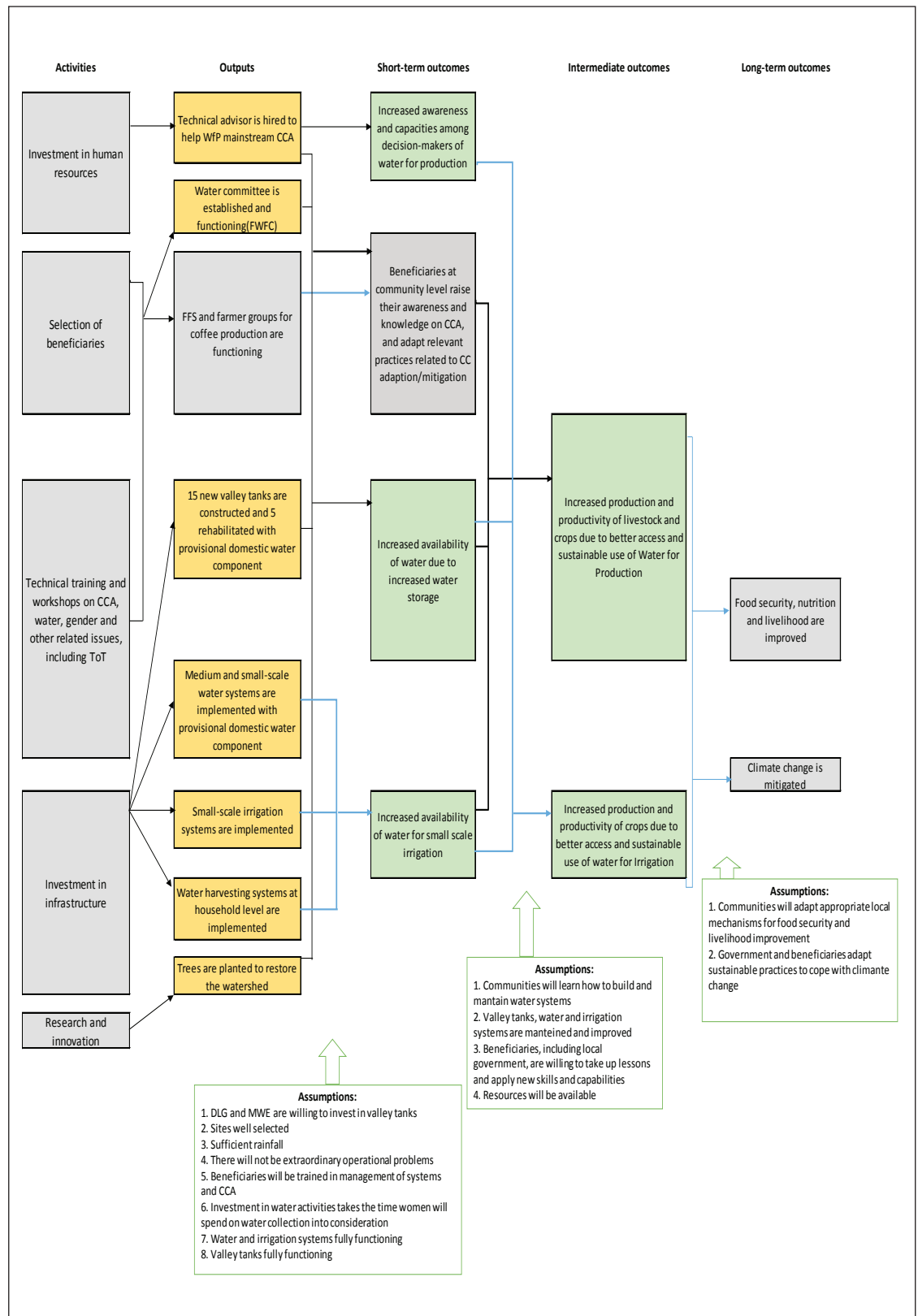


Result Area 1. Knowledge and capacities for climate change adaptation strengthened

- 32 To the national central government, the GCCA project provides infrastructure, human resources, as well as technical training and awareness raising on CCA. As a result, it is expected that a building for the Climate Change Unit is constructed and equipped, the National Climate Change Resource Center is established, vehicles are procured, technical advisors on CCA are hired to work within the department and both the Climate Change Unit and MAAIF staff are trained on CCA and other related issues¹⁷. Training on CCA is also provided to the six DLGs, so they can plan implementation of new and effective practices to cope with climate change related issues at local level. Training on CCA also included training on water management (R2) and resilience practices (R3).
- 33 At community level, FAO works together with implementing partners to develop activities aimed at helping communities deal with the effects of climate change by adopting adaptation practices. Due to this, implementing partners are trained to perform training of trainers to the selected farmers within the targeted communities. It is expected that these implementing partners also implement CCA practices in their daily work within their organizations.
- 34 In all the trainings, gender equality should be mainstreamed as a key factor to cope with the effects of climate change, since women's participation and decision-making in rural institutions, as well as women's equal access to land, income, productive resources and technologies are central to mitigating the risks of climate change in order to reduce poverty and food insecurity¹⁸.
- 35 As a consequence of these contributions at output level, it is expected that both national and local government, as well as implementing partners, will adopt and implement new practices, attitudes and knowledge on climate change within their organizations and in their daily activities, ensuring gender mainstreaming. They are also highly encouraged to share the knowledge acquired with colleagues within the organization or from other departments and institutions. At the community level, as part of the project intervention, the implementing partners should transfer the knowledge through training activities to the selected beneficiaries from the targeted areas (mainly through FFS).
- 36 Assuming that the players involved in this process are willing to take up and incorporate the lessons, skills and capabilities developed, gender-responsive institutional frameworks, policies and programmes on climate change adaptation are expected to be developed. It is also expected that beneficiaries at community level, as well as people indirectly affected by the project interventions, adopt new gender-responsive practices to cope with the effects of climate change within their households and communities.
- 37 Finally, as a result of this change process from the strengthening of knowledge and capacities for CCA, it is expected that the change process' results regarding the other two result areas are maximized, since developed capacities and knowledge are essential to managing water and building resilience.

17 According to the project document, a climate change modelling and forecasting should be launched. However, at the time of the evaluation it was not functional, so this output has not been addressed in this report.

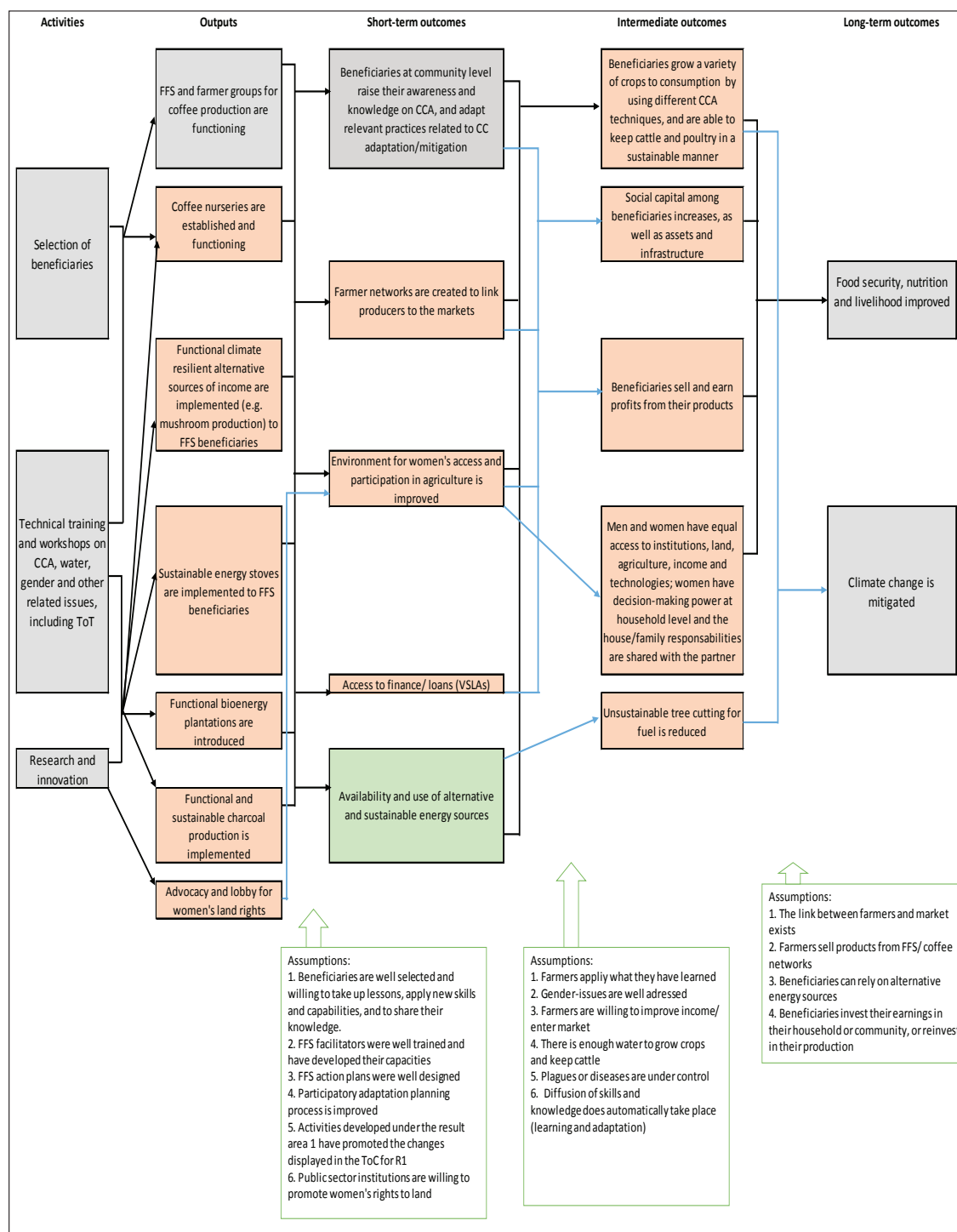
18 FAO Policy on Gender Equality.



Result Area 2. Improving access to water for crop and livestock production

38 Regarding Result Area 2, by investing in technical trainings, as well as in infrastructure, research and innovation, the project delivers different water-related outputs and outcomes to support agriculture: 20 functional valley tanks at local level; medium- and small-scale water systems at community and household level; and small-scale irrigation systems at household level.

- 39 To manage these new water systems, especially the valley tanks, water committees composed by community members are formed and trained to increase community awareness on CCA-related topics. At national level, a technical advisor is hired to strengthen the Water for Production department's capacity on mainstreaming CCA, and contribute to improved staff knowledge on CCA. Through the FFS mentioned under Result Area 1, beneficiaries are also capacitated on water use and management, including the valley tanks and the community/ household water/ irrigation systems. Trees to restore watersheds are planted to improve water collection and availability.
- 40 Both direct and indirect beneficiaries will access water to grow crops and keep cattle and poultry in a sustainable manner, assuming that (i) sites to implement the water/ irrigation systems are well selected, (ii) beneficiaries will take up lessons, skills and capabilities developed under Result Area 1, and (iii) there will be enough rain to fill up the water for production systems. In addition, assuming that national and local governments as well as community level beneficiaries are willing to invest time and resources in the water/ irrigation systems, these will be maintained and improved.
- 41 Finally, considering that beneficiaries will use these improved and maintained water/ irrigation systems in tandem with climate-smart agricultural practices highlighted under Result Area 3, food and nutrition security can be achieved, as well as climate change mitigation. The outcomes generated under Result Area 2 are essential to the full adoption and use of activities developed under Result Area 3.



Result Area 3. Resilience of agricultural production systems in the cattle corridor improved

42 In order to improve resilience, a variety of practices aimed at mitigating or adapting to the effects of climate change in agriculture were implemented (e.g. awareness-raising, capacity building and training on CCA), mainly targeting traditional activities such as crop production and cattle keeping (Result Area 1). Through the FFS approach, the project promoted a set of outputs aimed at assisting beneficiaries at the community and household levels to identify alternative sources of income and reduce their work burden. These activities included coffee nurseries, mushroom production and sustainable energy stoves. Practices to promote clean energy for resilience were also promoted (e.g. sustainable charcoal production) as well as lobbying for women's right to land in order to guarantee equal access to productive resources.

- 43 It was expected that through the project (i) beneficiaries would adopt alternative, resilient and climate-smart agricultural practices; (ii) farmer networks would be created to facilitate access to markets; (iii) farmers would have access to finance and loans; (iv) women would have equal participation in agriculture; and (v) alternative and sustainable energy would be available to mitigate climate change effects. The above results assume that: FFS facilitators are well capacitated; participatory adaptation plans are well designed; beneficiaries are willing to take up lessons, skills and capabilities learned under Result Areas 1, 2 and 3; and the public sector is willing to promote women's equal access to land,
- 44 As a result, farmers will be able to grow a variety of crops for consumption and selling, which will potentially increase access to food and income. To achieve these results, it is important that the outcomes under Result Area 2 are also achieved to improve water access and availability.
- 45 It was also expected that men and women would have equal access to rural institutions, land, income and technologies, which ultimately will contribute to improved access to food and income. As a consequence of the availability of alternative energy sources, it is expected that unsustainable tree cutting for fuel will be reduced.
- 46 Finally, considering that farmers' families consume and generate profits from their own products, and that they can rely on alternative energy sources, it was expected that food security and nutrition were likely to be improved, and that climate change was likely to be mitigated.

3. Evaluation questions: Key findings

3.1 Evaluation question 1 – What are the results from the GCCA project interventions?

ACHIEVEMENTS UNDER RESULT AREA 1: KNOWLEDGE AND CAPACITIES FOR CLIMATE CHANGE ADAPTATION STRENGTHENED¹⁹

Finding 1: *The GGCA project was instrumental in strengthening the institutional capacity for CCA at different levels in the country. Major achievements of the project support included Uganda’s participation in climate change fora at the international, national, local government and farmer levels.*

Finding 2: *In view of Finding 1 above, the evaluation team found significant indications that the project target of a 10% increase in the proportion of stakeholders (at government, agency and community levels) who are knowledgeable on climate-change adaptation has been met and even surpassed, as has the target of a 20% increase in the proportion of stakeholders (at government, agency and community levels) applying CCA practices. FGDs with FFS beneficiaries indicated that the uptake target has been met for most of the new low-cost practices introduced, in particular around the demonstration plots. The uptake of practices which require land ownership or start-up capital has been lower.*

Finding 3: *In line with Findings 1 and 2, the evaluation team found a high level of awareness of climate change, its manifestation and consequences, and what is required from the different stakeholders at different levels in order to appropriately respond to its most adverse effects.*

- 47 The GGCA project has played a key role in strengthening the institutional capacity for CCA at different levels in the country. This was confirmed by results from the online survey conducted by the evaluation team: three out of four respondents found that support from the GCCA project had been “very important” for capacity building of their institution on agriculture adaptation to climate change, as compared with support received from other development projects. Likewise, two out of three respondents found that they were applying the improved capacities and knowledge on agriculture adaptation to climate change “to a high extent” in their daily work. The improved knowledge and capacity was mainly used by the respondents in relation to meetings with other institutions and/or speaking with colleagues about the topics (four out of five respondents). This indicates that the GCCA project has contributed to a strong institutionalisation of the CCA concepts within and across institutions at central and local levels.
- 48 The support extended to the Parliament of Uganda has increased knowledge and awareness of climate change among the country’s legislators. Among the many issues of global concern, CCA is one of the few for which a parliamentary forum (Uganda’s Parliamentary Forum on Climate Change has been established and registered as a legal entity²⁰.
- 49 The GCCA project has been an important catalyst for establishing the Forum through targeting of parliamentarians for CCA awareness raising and lobbying. Forum membership increased from 100 members in 2015 to currently more than 200 members, confirming the increase in awareness and attention to CCA issues among the parliamentarians.
- 50 The Parliamentary Forum on Climate Change has been instrumental in pursuing the climate change agenda in parliament and has supported the participation of parliamentarians in the United Nations Framework Convention on Climate Change Conference of Parties meetings. This has not only showcased what Uganda has achieved in undertaking CCA, but also greatly enhanced the capacity of parliamentarians to articulate climate change issues in the national

¹⁹ Analysis regarding national and district level. Achievements on capacity development at community level is described under result area 3.

²⁰ The others are the Amani Forum on peace and UWOPA on empowering women in parliament.

legislature, as well as other platforms nationally and internationally. As a consequence, in September 2016, Uganda became one of the first ten African countries to ratify the Paris Agreement on climate change, committing the country to a climate-smart development path.

- 51 The parliament is currently working on a new legislation on climate change. With support from the GCCA project, the draft climate change bill is currently underway (the principles of the bill were finalized in December 2016). The GCCA project has supported the development of an implementation plan that identifies the different adaptation and mitigation actions that need to be taken, including the associated costs. The policy framework for CCA in the country, which was approved in 2013, will be strengthened significantly once the legislation on CCA is finalised.
- 52 As a result of the country's raised climate change profile, Uganda has increasingly benefitted from available global financing for programmes and plans linking climate actions with national development policies based on 'nationally determined contributions' that stipulate actions being undertaken to reduce the emissions of greenhouse gases. The support from the GCCA project has enabled Uganda to document and internationally showcase its experiences on CCA in regional and international fora. The Speaker of the 10th Parliament, Rebecca Kadaga, formally recognized the GCCA project for sponsoring a youth delegation to COP22 (which earned Uganda the right to host the UN Africa Region Conference of Youth on Climate Change), and acknowledged the contribution of FAO and the GCCA project²¹.
- 53 Interviews with CCA key stakeholders in Uganda confirmed that the GCCA project has helped to position Uganda as a leader in CCA among African countries. As a result of the successes achieved in Uganda, other countries are implementing the GCCA project based on its best practices. These best practices include the approaches used in CCA mainstreaming, including the work undertaken through FFS.
- 54 The support provided by the GCCA project to the national central government has enabled a smooth and successful transition of the Climate Change Unit²² to a fully-fledged Climate Change Department²³, and thereafter significantly supported the institutional capacity strengthening of Climate Change Department. Although the Climate Change Department is not yet fully constituted in terms of staff²⁴, the GCCA project has enabled it to take a lead role in CCA in the country. As a result, CCA has become a key public sector priority for policy, legislative, planning and budgeting frameworks at the national and district level. A room on the ground floor of the Climate Change Department premises is set aside as the National Resource Centre for Climate Change where computers has been provided and installed.
- 55 The Climate Change Department's capacity to coordinate CCA issues within and between ministries, departments and agencies has been greatly improved. This was confirmed through interviews with key stakeholders. Support from the GCCA project at the national level has enabled the mainstreaming of CCA in not only the National Development Plan, but also sectoral plans and strategic investment frameworks throughout the country. This finding is supported by the results from the online survey: the respondents found that the area where their knowledge had improved most was on how to mainstream CCA across different sectors.
- 56 The need for promoting climate-proof national development as a development pathway for the country has been clearly demonstrated in Uganda's medium-term expenditure frameworks. The clearest demonstration of this commitment was made in the first budget call circular for FY2017/18 issued by the Ministry of Finance, Planning and Economic Development on 15 September 2016. All accounting officers and chief executive officers of public corporations and state enterprises were directed to show how climate change issues

21 Communication from Hon. Rebecca Kadaga, Speaker of parliament dated 24 November 2016, to Mr. Edwin Muhumuza, Youth Go Green Uganda, on the subject, 'Report on CoP22 Marrakech, Morocco', referenced: AP/116/107/01.

22 Established by cabinet vide Cabinet Minute No. 241 (CT 2009), and set up under the Office of the Permanent Secretary, Ministry of Water and Environment, to coordinate the national implementation of the 1993 United Nations Framework Convention on Climate Change (UNFCCC) and the subsequent 2002 Kyoto Protocol on climate change.

23 Established in May 2014 to coordinate the implementation of the National Climate Change Policy and supervise all climate change actions both adaptation and mitigation across all sectors in Uganda.

24 By December 2016 when the evaluation was done, staffing at CCD was 12 out of 25 approved positions for technical staff and 3 support staff out of 5 approved positions.

were addressed in their budget strategies and priorities under agriculture. As a result of this directive all ministries, departments and agencies and DLGs have endeavoured to implement climate-smart policies, plans and investments priorities in their medium-term expenditure frameworks, on which financial appropriations under the national budget are based.

- 57 The support provided by the GCCA project has enabled the Climate Change Department to assume the national responsibility for undertaking integration of CCA in the public sector. With the directive from the Ministry of Finance, Planning and Economic Development contained in the 2017/18 budget call circular, the Climate Change Department has become even more visible and relevant. The department supervises the implementation of the National Development Plan indicators for the integration of climate change across all sectors and reviews district annual work plans to ensure that CCA has been integrated. The support provided by the project has enabled department to spearhead the mainstreaming of CCA in eight sectoral policies, including environment management, agriculture and water, as well as mainstreaming CCA in sectoral plans and budgets, where guidelines were developed for climate change integration.

District Local Governments in GCCA project areas understand CCA

- 58 The GCCA project has helped DLGs to understand CCA from both a technical and planning perspective, although with very different levels of capacity among DLGs for integrating and mainstreaming CCA into district planning processes²⁵. Within each of the six supported districts, the GCCA project has supported the establishment of a District Climate Change Task Force (chaired by the DLG), which have become important forums for coordination of climate change activities at district level.
- 59 The evaluation team accessed soft copies of the current District Development Plans for the six districts. From a reading of these plans using a CCA lenses, it was clear that in some of them many different interventions were identified to respond to CCA²⁶. The resources that were budgeted for many of these activities demonstrated a high degree of consciousness of the important role of CCA in district development.
- 60 Another indication of improved capacities on CCA within the supported districts is that none of the six project districts had been penalized by the Ministry of Local Government in undertaking annual assessments of the performance of DLGs. In these assessments, the extent of mainstreaming of CCA was, among others, given special consideration. The Climate Change Department is always represented on the task forces constituted by the Ministry of Local Government to undertake these annual assessments.

Policy and Legislative Framework for Climate Change Adaptation Strengthened

- 61 There is increased awareness of the country's international commitments to the global climate change agenda. This has made it easier to galvanize consensus in parliament in support of prioritized actions for promoting climate-smart national development, and ensuring compliance of the country to its commitment to the global climate change agenda.
- 62 In October 2016, following a report tabled in parliament by the Parliamentary Committee on Natural Resources, the government banned sand mining in Lwera to protect a major water catchment area that connects rivers and wetlands in Gomba, Mpigi and Kalungu districts before draining directly into Lake Victoria. The main consideration for the action by the legislature was climate change. Although there is still work to be done, efforts are being made to pursue a development path that can be at best described as climate-smart. This was supported by the enforcement of relevant regulatory agencies.

25 As an example, FGDs with DLG management and staff in Nakaseke and Nakasongola revealed that while the DLG in Nakasongola already had taken ownership of the process and managed to integrate CCA into district planning processes and use the project as leverage for improving coordination and collaboration with other partners, the DLG in Nakaseke did not demonstrate the same level of commitment and capacity to benefit from the project support.

26 In Mubende, for example, the district has recently intervened to regulate the disposal of silver and mercury used in the gold mines in the district. The district has also formulated a District Charcoal Ordinance, seeking, among others, to establish a district tree nursery for promoting tree planting in the district.

ACHIEVEMENTS UNDER RESULT AREA 2: IMPROVED ACCESS OF LIVESTOCK AND CROPS TO WATER THROUGH WATER FOR PRODUCTION INVESTMENTS

Finding 4: *The 15 new valley tanks constructed and five existing valley tanks rehabilitated (five more systems than originally planned) will help to increase the availability of and access to water by livestock in the six cattle corridor districts throughout the dry periods. The enhanced access to water (whether as a private good or a common property resource) has resulted in increased livestock production and the diversification of pastoralists' enterprises focusing on the livestock value chain – especially milk and milk-based products. The evaluation team found indications of transformative changes, including reduced migration among pastoralists, a more stable income stream for families and higher school attendance among children.*

Finding 5: *The support provided by the GCCA project increased availability of and access to water for crop farming among beneficiary farmers. As a result, production has increased and small-scale irrigation systems have been adopted. Moreover, the extensive cultivation of different crops was possible year-round in areas where this was previously considered untenable.*

- 63 Under Result Area 2 of the GCCA project, 15 new valley tanks have been designed and constructed, and five existing valley tanks rehabilitated by the MWE in collaboration with the respective DLGs. Although most of these valley tanks had not yet been officially commissioned at the time of the evaluation²⁷, a number of achievements have been met, which will become even more apparent after the water facilities become operational.
- 64 Although the start-up of the construction of the valley tanks in the six project districts was delayed²⁸, the construction works on the new 15 valley tanks had been completed by the time of the evaluation and were awaiting official handover to the districts and beneficiary communities by the MWE. Some communities, however, were already using the water in the facilities before they were handed over. The catchment areas where valley tanks were constructed promise a high catchment yield to be harvested from surface run-off. As a result, water will be available for a much longer period during prolonged droughts. The distances traveled in search of water during the dry season will also be reduced.
- 65 Even though none of the valley tanks were based exclusively on underground recharge, there were some valley tanks that already had water coming from underground aquifers. Channels for water intake into the valley tank from the surrounding area were concreted with stone masonry finishing. At the downstream sections of the valley tanks, spillways were constructed to enable spillage of excess water. In this way, the water was available for alternative uses by beneficiary farmers involved in fish farming.
- 66 Due to the deep excavations made with gently sloping embankments on the side walls, the possibility of damage caused by flooding has been minimized. The large volumes of water expected when the valley tanks fill up (volume of 10 000 m³) means the facilities are unlikely to dry up easily, although there is still a likelihood of underground filtrations and evapo-transpiration that will affect the water retention. At the time of the evaluation team's visit to the communities, there were no immediate indications of CCA interventions targeting the valley tanks, such as the planting of tree woodlots to surround the water facilities.
- 67 By-laws have been formulated for the use of the water facilities, requiring that all beneficiaries maintain a verifiable disease control regime for their herds, enforceable with the possibility of heavy sanctions, including the imposition of hefty fines. Since access to

27 Apart from the valley tank at Lugala village, Kitenga sub-county, Mubende district that had been officially commissioned and handed over to the community on 16 May 2016.

28 Causes for delays included, among others: (a) discussions over financing mechanisms. MWE preferred basket funding while EU/FAO wanted separate accounting for the valley tanks funding. A middle ground was agreed, where the funds would be put in the basket, and FAO would do a special audit before a subsequent disbursement; (b) Districts preferred smaller valley tanks, so they could get with fund available, while MWE wanted big valley tanks to function as strategic reserves; (c) sites were handed over to MWE towards the February 2016 general elections.

water is subject to compliance with certain by-laws, especially concerning animal diseases control, the valley tanks are likely to witness increased compliance to livestock disease prevention and control measures. This is especially the case for regular dipping or spraying to control tick-borne diseases that affect the livestock economy in the cattle corridor. On the other hand, being a collection point for many animals, the water facilities can be a nexus for highly infectious communicable diseases.

- 68 Calculations made by MWE²⁹ show that cattle will have to wait a long time to access water at the valley tanks. The stress on the cattle is likely to affect their productivity. As herds belonging to different people wait for their turns to water, they need space for the holding area as well as pastures for grazing. The pressure on the surrounding environment is likely to increase as cattle populations continues to rise over time. The areas available as cattle holding grounds were usually dependent on the amount of land donated to the community or purchased by the district for the construction of the valley tanks. For all the valley tanks, the sizes of the cattle holding areas are quite small. This would not be a problem if there is goodwill from owners of land around the valley tanks; however, it is unrealistic to expect that this will always be the case.
- 69 The siting of most of the valley tanks is highly appropriate, making accessibility easier. Some of the valley tanks are located along major access roads, and those that are off such roads are reachable by car. The ownership of land for the 15 new valley tanks was secured by the government; land owners offered land by signing land offer and consent declaration agreements. In these agreements, land owners allowed the government to process titles for the land offered; it was only the title of Bamusuuta valley tank that had already been transferred to the Kakooge sub-county. The processing of the land titles for the rest of the facilities were underway, as all the landowners had already consented to the transfer of ownership to the respective sub-counties.
- 70 There are a number of environmental issues that are likely to be occasioned by the construction of the valley tanks that may affect the human population. While availability of water will reduce risks of bacterial contamination, the possibility of an upsurge of water-borne diseases and vectors (especially malaria-causing mosquitos) has not been given much attention³⁰.
- 71 The GCCA project supported the construction of valley tanks in the six project districts as communal water facilities. A few cattle farmers also benefited from the construction of individual water sources on their private farms. While this dual strategy was at the heart of contentions between one camp that favored large valley tanks (the position taken by the MWE³¹, and supported by Kiboga district³²) and another that preferred smaller valley tanks (supported by the Ministry of Agriculture, Animal Industry and Fisheries³³, and most GCCA project districts³⁴), it not only increased opportunities for unfettered access to water for livestock, but also revealed the nature of the conditions likely to influence adoption of improved livestock husbandry practices.
- 72 Based on the evaluation team's visits to pastoral households in cattle keeping communities within the six districts, it was evident that beneficiary farmers who were keen on adopting improved livestock husbandry practices had also invested in private water sources and were adopting the growing of improved pastures such as Rhodes grass (*chloris gayana*) and Signal grass (*brachiaria*), and improved fodder grass (such as *nappier*) and fodder trees (such as *calliandra* and *gliricidia sepium*).

29 See Republic of Uganda, GGCA Uganda: Agricultural Adaptation to Climate Change Project; 6th Quarter Technical and Financial Report for the period 1 July 2016 to 30 September 2016, prepared by Ministry of Water and Environment, Water for Production Department (pp. 19, Supra 8).

30 This should be addressed in a second phase to guarantee a holistic approach with the Sustainable Development Goal 3.

31 Interview with MWE officials, MWE head office, Luzira held on 12 December 2016

32 Key Informant interviews.

33 Key Informant interviews

34 In Mubende and Nakasonbola, it was argued that the funds MWE spent on construction of three valley tanks in each of the two districts, would have been enough to construct more than twice the number of valley tanks with almost twice the volume of water currently available if the districts had been allowed to use the equipment at their disposal, with the GCCA project resources used to fuel the equipment and pay technical and support staff.

- 73 Secure tenure in land was one common characteristic the evaluation team found among adopting pastoral households across the districts, although they held and accessed land under different ownership regimes. For example, one farmer was a customary tenant on mailo land, and another on public land. Both were in the process of securing titles to their land and did not think they could be evicted from the land they occupied. Due to security of tenure, the farmers were able to invest in construction of water facilities and undertake pasture improvement on their farms.
- 74 Among cattle farmers, the investment by the project in increasing access to water made pasture and fodder improvement and hay-making possible. Beneficiary households were able to diversify and improve their cattle-based agricultural enterprises by adopting the rearing of improved livestock breeds. One common characteristic among adopting households was the selling of most of their indigenous cattle, and replacing them with hybrids or grade animals crossed with mainly Guernsey and Jersey breeds, but also to a small extent with Friesians.
- 75 The share of household income from milk production has increased from around one-quarter of total household income to almost two-thirds after the GCCA project started³⁵. With increased milk production, not only did the incomes of beneficiaries increase tremendously, the concerned households were also able to diversify into other productive activities. Cattle farmers diversified into activities along the livestock value chain, such as the making of yoghurt and ghee. As incomes increased, so did their capacity to improve their well-being.

Increased Access to Water and the Transformation of Pastoralism

- 76 The majority of cattle farmers consulted by the evaluation team acknowledged that before they joined the GCCA project they used to roam a lot looking for water and pastures. Not only did this mobility affect the lives of their families (e.g. their children who were often out of school due to lack of school fees or because they had to accompany the herds), it also affected the lives of their herds, which due to stress were unable to produce much milk. On several occasions, cattle died from exhaustion from walking long distances without water. In addition, mobility increased the risk of spreading disease and pests³⁶.
- 77 Following the support provided by the GCCA project, the evaluation team did not find evidence among pastoral households of a shift from dependence on cattle as the main source of livelihood to a crop-based livelihood. In the transformation that was taking place, pastoralists were adopting crop cultivation and simultaneously becoming better at livestock farming than they were before the start of the GCCA project. The support from the project made it possible for pastoralists to learn how to appropriately integrate crop growing into their cattle rearing practices. The investments made possible by the GCCA project had also in the process enabled the release of the labour of not only adults, but also the children and youth from herding activities in predominantly pastoralist households.
- 78 Due to the delay in the implementation of this component, it has not been possible for the evaluation team to assess whether the targets have been met (a 20% increase in the number of livestock and/or livestock owners that have sustainable access to sufficient water throughout the dry period and in the arable land area with small-scale irrigation potential).

Improved Access to Water for Crop Farming

- 79 With the support from the GCCA project, there is now increased availability of and access to water for crop farming in the dryland areas, which has the potential to immensely boost food production in the supported areas.

35 Key Informant interviews.

36 District veterinary extension staff confirmed to the ET that diseases outbreaks were easier to control in GCCA project areas, since movement of their herds was more restricted. As more farmers had learnt improved husbandry practices, the incidence of disease epidemics had also been reduced.

- 80 Water is available mainly from two sources. The first source is water from six community managed small scale irrigation systems constructed by the project, all of them close to at least one of the FFS demonstration sites. Through abstraction, this water is lifted to a reservoir tank placed at a raised platform using solar powered pumps installed at the valley tanks; from there the water is supplied to crops at the demonstration site via a drip irrigation system. Although there was an increase in appreciation of the importance of irrigating crops, the adoption of drip irrigation from the demonstration sites is still limited by the high cost of moving water into drip lines beyond the FFS demo sites. The farther away from the demonstration site one gets, the more expensive the irrigation becomes. Efforts are being made to expand crop irrigation to the 15 newly constructed and five old rehabilitated valley tanks, which are presently used for livestock watering.
- 81 The second source is water from underground pits lined with dam-liners; water is harvested from a makeshift roof above the excavated pit (called dam-tankers) whose capacity ranges between 30 000 and 35 000 liters. Peddle-pumps are being used for water abstraction. Irrigation was done either through a hand-held horse pipe or bucket-and-carry method. The main limitation of this irrigation system is that the size of land that can be irrigated is very small. Most farmers are not able to irrigate their private fields beyond an average distance of 50 to 100 meters from the demo sites.
- 82 The evaluation team observed an increase in the number of beneficiary farmers implementing small scale irrigation schemes on their farm holdings. In communities where the project supported community irrigation systems, many farmers, including non-members of the FFS who had access to land close to swamps, have adopted the use of water from hand-dug ponds for crop irrigation using the bucket-and-carry method.
- 83 Despite the potential for increasing crop production, there are challenges facing the community irrigation systems. At Lugala village in Kitenga sub-county, the evaluation team observed the following challenges, among others: (i) the solar pumping equipment was not able to supply enough water to all the drip lines that had already been laid; (ii) the solar system did not have an accumulator. Even when it had been switched on, a passing cloud that covered the sun rendered the pumping system dysfunctional; and (iii) the available four acres had to be divided into separate blocks and irrigated one after another.
- 84 The evaluation team observed problems with the drip lines getting blocked, or not receiving enough water, rendering only parts of the demo sites closest to the reservoir tanks usable. Farmers found the drip lines difficult to maintain and some are already practicing a cheaper (although less efficient and rather unsustainable) drip irrigation system using plastic water bottles.

Increased Availability and Access to Water for Domestic Use

- 85 Although the investment in water for production under the GCCA project is intended for crops and livestock, in many of these areas it greatly contributed to increased availability and access to water for domestic use, even when the water was not safe water.
- 86 The establishment of small-scale water harvesting and irrigation systems (through funding from the Belgium Government) included at least five concrete ferro-cement above-ground water harvesting tanks of 10 000 liters constructed in each FFS. The roof water is clean and safe to drink. In most cases, the water from the water harvesting tanks is shared with between five to 25 neighboring households, each allowed between one and three 20-liter water containers per day for drinking purpose, depending on the amount in the tanks.
- 87 In a few cases, where the FFS model farmer (the FFS demonstration site) was engaged in several enterprises (e.g. zero grazing cattle, goats, tether cattle, chicken, piggery, banana, maize growing, fodder growing, nursery trees) the water collected was inadequate. Although the harvesting of water from the pre-existing roofs of houses were mainly considered used for human consumption, this water has also contributed to increased access of livestock to water, since the valley tanks constructed (apart from that in Lugala village, Kitenga sub-county, Mubende district) had not yet been officially handed over to the beneficiary communities.

- 88 Although the GCCA project supported investment in the water harvesting tanks, shortages of water for domestic use remained a critical challenge and was one of the key aims pursued in the project areas. Most water harvesting tanks in the beneficiary households visited by the evaluation team were almost empty because it had not rained for several months. There is a need for investments in water for production to also consider integrating investments aimed at increasing availability and access to safe water for human consumption in the project areas.
- 89 Women have also benefited immensely from the water harvesting tanks donated to FFS. Since in the region fetching water for domestic use is their primary responsibility, women beneficiaries interviewed during the evaluation intimated that they no longer have to carry water on their heads for long distances. With improved access to water for domestic use, the frequency of children and women going long distances to fetch water in places where cases of abuse occur has been reduced significantly.

ACHIEVEMENTS UNDER RESULT AREA 3: RESILIENCE OF AGRICULTURAL PRODUCTION SYSTEMS IN THE CATTLE CORRIDOR IMPROVED

***Finding 6:** The evaluation team found that the project contributed to resilient agricultural production systems³⁷.*

***Finding 7:** Due to the uptake of climate smart crop cultivation, farmers are growing different types of fruits and vegetables throughout the year, and increasing their income by selling surplus crops. The project also established Village Savings and Loan Associations (VSLAs) among FFS groups. As a result, there are indications that the project is likely to improve food security, nutrition and livelihood conditions (e.g. some producers are now able to pay for school fees or buy new pieces of land).*

***Finding 8:** The uptake of knowledge was highest among coffee nursery operators and cattle farmers improving their pastures. Uptake was slow among vegetable and banana growers largely due to their subsistence lifestyle and lack of surplus crops for sale. Although the uptake of knowledge among mushroom producers was high, challenges such as high cost of spawn and lack of starter capital prevented them from improving their outcomes.*

***Finding 9:** The FFS approach has promoted knowledge transformation and resilience capacity through CCA practices. FFS also indirectly benefited non-beneficiaries community members, which is likely to extend the project's intended effects on CCA.*

***Finding 10:** The GCCA project led to an increase in the land area covered by tree vegetation. This had a positive impact on the micro-climate in the areas with bio-energy plantations, and provided beneficiaries with the skills required to establish and manage tree nurseries and tree planting as private business enterprises. The number of farmers who benefitted financially from these enterprises was on the rise in the six target districts.*

***Finding 11:** The project has enabled increased access of crops to water, which has made it possible for beneficiary communities to more easily adopt climate smart crop cultivation. This resulted in increased crop production and output among beneficiary farmers.*

- 90 A total of 756 FFS have been established and become functional through the GCCA project, directly benefitting about 22 000 community members within the six target districts in the cattle corridor. Of these, 336 groups were supported by the six implementing partners and 420 groups were focused on coffee farmers.
- 91 The evaluation revealed that additional income was generated by beneficiaries engaged in the project, and that increased earnings are improving their livelihoods over time. This finding is in line with results from the "Economic Analysis of the Farmer Field School Approach Based on its Contribution to Smallholder Farmer Livelihoods and Incomes in Northern and North-eastern Uganda" (FAO, 2016), which suggests that the FFS approach promoted by FAO and other collaborating partners has "...*contributed significantly to improving the livelihoods of target households in the central cattle corridor*". Likewise, the Terminal Results Assessment Report (FAO, 2017, p.4) concluded that "*resilience of rural households to climate change has been improved by the GCCA project*" and that GCCA beneficiaries are more likely to market their surplus produce than non-beneficiaries with the same farm size and wealth; beneficiaries also bargained more for higher prices through social capital networks. The terminal report found that while GCCA beneficiaries in 2015 sold about 75% of their harvested produce, a group of comparable non-beneficiaries sold about 63%. This is an indication of a higher degree of market-oriented production among the GCCA beneficiaries than among the non-beneficiaries.
- 92 Interviews conducted by the evaluation team with several officials from the six districts (especially Mubende and Kiboga) affirmed that there was indeed increased crop production, with subsequent increases in ongoing trade of commodities such as maize and

³⁷ Adaptive capacity of agricultural production systems to climate hazards raised to sustainable levels for at least 10 percent of the target communities and regenerative capacity of natural (biomass and water) resources accessed by at least 10 percent of the target households in the cattle corridor restored to ecologically sustainable levels.

other cereals across neighboring districts and international borders of Sudan, Kenya and Rwanda³⁸. Unprocessed maize was exported to Kenya, for example, where it was processed and some of it re-exported back to Uganda for use in animal feeds.

- 93 During FGDs, beneficiaries attested to increased production and subsequent income gained from increased yields owing to practicing climate smart agriculture. Several members indicated that they had at least doubled their maize production per unit of land cultivated. Livestock (especially poultry) productivity increased over five-fold while fruit and vegetable production flourished.

Increased Adoption of Climate Smart Crop Cultivation and its Benefits

- 94 The FGDs with FFS beneficiaries confirmed that the capacity of beneficiary farmers to respond to either lack of rain or too much rain, or to drought, as well as diseases has increased. During the FGDs, the majority of farmers confessed that prior to the FFS training provided under the GCCA project, they did not know what to do when their crops were decimated by adverse climatic conditions. Likewise, the evaluation team encountered a large number of cattle keepers who did not know how to cultivate crops before they joined the FFS. Some did not imagine that fodder could be grown. Through the GCCA project, farmers were taught different techniques of climate smart crop and livestock methods. This training was supported by the Terminal Results Assessment Report (FAO, 2017), which found that 82 percent of GCCA project beneficiaries indicated that their capacity to deal with climate change had increased in the last five years, while only 34 percent of non-beneficiaries indicated the same.
- 95 The following were some of the most important climate smart agricultural techniques and practices that farmers learned from FFS: planting in lines, correct spacing of crops; harvesting of surface water run-off; mulching using grass, crop residues and domestic waste; adding manure and inorganic fertilizers; and the application of herbicides and chemicals to control termites³⁹.
- 96 The issue of banana production was emphasized during FGDs with FFS farmers. Before the GCCA project, banana plantations did not outlive the first harvest year. However, after the project started, banana plantations began to thrive due to new climate smart techniques introduced by the project. Bananas were intercropped with either coffee or nitrogen fixing fodder tree varieties. Farmers intimated that for the first time in the history of their villages, banana plantations were healthy after more than three years.
- 97 With support provided by the GCCA project, the decline of banana growing in the central Uganda was reversed, and bananas have been introduced in areas where their cultivation was previously considered untenable. Adoption of new techniques of production introduced by the project have also made it possible to grow coffee in agro-ecological zones in different parts of the cattle corridor within areas where it was previously not thriving. Even soils dominated by rocks and stones have been rendered cultivable.
- 98 In the FGDs with FFS beneficiaries, the majority of the participants intimated that they are now able to grow vegetables throughout the dry season, something which was impossible before the project started. In Kiboga District, the evaluation team visited several households that were able to convert sections of their compounds into vegetable gardens using soil lifted from elsewhere and patterned out in aesthetically good looking designs that also enhanced the beauty of compounds.
- 99 Irrigation has made it possible for beneficiary farmers to grow different varieties of vegetables year-round. The vegetables grown included cabbages, tomatoes, green peppers, carrot, nakati (*solanum aethiopicum*) and dodo (*amaranthus retroflexus*). According to interviews with district officials, over the four years of project implementation, Kiboga and Mubende have become leading producers of cereals (maize, beans and groundnuts) and vegetables.

38 The districts did not immediately have concrete and actual data on the volume of production and sales to reflect on the actual production levels.

39 *Cymbopogon* (lemon grass) is for example encouraged in Sembabule for control of pests.

- 100 Among beneficiary farmers involved in vegetable gardening, vegetables have become an important part of their diets. The resulting improvement in nutrition was reported in all six districts. There was an uptake of vegetable gardening among both crop and livestock farmers, and the increased diversity has enabled households to improve nutrition. According to the information provided through the FGDs and household visits within the benefitting communities, the greatest impact has been visible among the children. In the past, their diets were dominated by milk. With increased adoption of crop cultivation, the cattle farmers stated that the introduction of solid foods as part of the diets of their children had generated positive health results. These findings were supported by results from the Terminal Results Assessment Report (FAO, 2017, p.37) which revealed that on average GCCA beneficiaries have a higher Household Dietary Diversity Score (HDDS) than non-beneficiaries⁴⁰.
- 101 The majority of FFS households the evaluation team met with in the six districts claimed that before they joined the GCCA project they never had enough food to last them through the dry season. The cattle farmers specifically acknowledged that in the past they migrated in search of cassava and other food crops to buy from crop farmers. Now that they grow their own food, having realized they do not need to migrate their herds in search of food, or to sell their prized cattle in order to buy food from crop farmers. The crops grown by the benefitting pastoralist households included vegetables, cabbages, eggplants, tomatoes, green pepper, bananas, maize, sweet potatoes, pumpkins and cassava. These findings were supported by results from the Terminal Results Assessment Report (FAO, 2017, p.37) which revealed that the stock of maize and beans within the households doubled during the project implementation period⁴¹.
- 102 The majority of these FFS households also reported that they were now eating three meals a day because they have enough food to cook. In the past, a number of these households would ration food to last until the next harvest. These findings were supported by the “Economic Analysis of the Farmer Field School Approach Based on its Contribution to Smallholder Farmer Livelihoods and Incomes in Northern and North-eastern Uganda” (FAO, 2016, p.22), which concluded that “(...) *in the cattle corridor household’s dependence on own food production has slightly shifted upwards*”. Likewise, the Terminal Results Assessment Report (FAO, 2017, p.2) concluded that “(...) *the GCCA beneficiaries were overall less food insecure in all the selected districts than the non-beneficiaries*”⁴².
- 103 Most of the households supported to undertake vegetable gardening claimed they no longer have to spend money to buy food, especially sauce, which has always been a problem for rural households. They also indicated that occasionally the vegetables were sold to generate income. Some households were growing vegetables for sale as their main source of income.
- 104 FGDs with FFS beneficiaries revealed that increased incomes from coffee, bananas or vegetables was mostly used for paying school fees for children and purchasing land. Coffee farmers were more likely than food crop cultivators to invest in building better houses. Although the GCCA project support has increased agricultural output, the full extent of its implications for improved livelihoods are yet to be realized because of limited investments in post-handling and value addition⁴³.
- 105 The project also introduced methods of conserving water in the plantation as an adaptation to climate change. Surface run-off water was harvested using trenches that divert water from its usual direction and into banana plantations. Farmers have been taught the *Fanya juu* and *Fanya chini* technique for creating terraces across slopes to plant crops and prevent soil erosion.

40 The HDDS is used to determine household economic access to food and reflect the nutritional quality of the diet. A higher HDDS indicates higher economic access to food and nutritional quality.

41 The stock of beans increased from 33 to 65 kg and the stock of maize increased from 90 to 182 kg.

42 The Household Food Insecurity Access Scale (HFIAS) is used as a measure of household food security. The lower the score, the less food insecure a household is deemed.

43 Mubende and Kiboga, which had become leading grain producers were exporting unprocessed grain. Traders from South Sudan, Kenya and Rwanda buy the raw maize and export it to their countries, where it is processed and re-exported. In an attempt to regulate production, control post-harvest handling and processing of maize to influence its marketability, Kiboga District had formulated the Maize Quality Bill, 2016.

- 106 The evaluation team observed a considerably high uptake of soil and water conservation measures, especially zero tillage, among beneficiary farmers visited in the six districts. This finding is supported by the Terminal Results Assessment Report (FAO, 2017, p.38) which shows that while 35% of the beneficiary farmers were practicing soil and water conservation strategies before the GCCA project support, this number had increased to 92% by the end of 2016. As a result, preferred seed varieties have been isolated. Where traditional varieties are still being grown, farmers are using the improved methods such as spacing, fertilizer application, pruning, various ways to deal with different diseases (banana bacterial wilt) and pests (weevils and nematodes).

The use of the FFS approach as a vehicle for knowledge transformation and capacity building

- 107 The GCCA project has enhanced farmers' knowledge and understanding of the concept, vulnerability risks and challenges associated with climate change in their environment. The project also has improved their critical analysis of potential future adverse effects if risks are not mitigated. The interactive self-appraisal model of farmers identifying their own problems and attempting to solve them through a guided 'learn-by-doing' and simple hands-on field experiments has helped to stimulate learning.
- 108 Interviews with key stakeholders in the districts and FGDs with benefiting farmers revealed that the rate of knowledge retention from trainings done in FFS was very high, largely because of the practical hands-on approach applied. According to the information provided, the knowledge retention from FFS was higher than any other approaches used for farmer extension advisory service delivery, including the extension service delivery model that was used by the government National Agricultural Advisory Services. Most ongoing government programmes, such as Operation Wealth Creation in the six project districts, were actually piggy-backing on the FFS for mobilizing and reaching farmers.
- 109 Through the 14-18 month 'experiential learning cycle', the farmers were equipped with skills to undertake agro-ecosystem analysis in climate smart agriculture practices. Farmers practiced skills in observation, data collection, record keeping, analytical thinking, decision-making and farmer-to-farmer sharing through meetings, farmer visits and field days. The interaction between communities and staff of research and service institutions has been a learning platform and an invaluable capacity building process.
- 110 The support provided by the GCCA project to the establishment of FFS demo sites has been useful, as the sites enabled the uptake of agricultural production technology in the six districts. For each FFS, a permanent demo site was set up. Venues for training sessions were alternated among FFS members to give each member an opportunity to host the FFS at his/her home. According to beneficiaries, this had the unintended effect of helping FFS members to know and become friends with their neighbors. It was acknowledged by district leaders and perceived by the beneficiaries that FFS had been instrumental in promoting greater cohesion among community members.
- 111 As a flagship institutional structure of the GCCA project, FFS was instrumental in linking communities with new technologies and techniques of agricultural production. The FFS has served as a useful institutional mechanism not only for the delivery of new innovations in agricultural production, as well as the provision of agricultural extension services in the format most appreciated by beneficiary farmers. Any new interventions being introduced in the GCCA project areas have found the FFS to be a convenient structure for mobilizing farmers. Beyond the dissemination of information on resilience practices, some farmers have successfully adopted the technologies and have endeavored to multiply them on their own.
- 112 The FFS curriculum was reviewed and tailored to integrate, climate resilient practices. The FFS facilitators were selected from the implementing partners and trained to apply the FAO-FFS approach and their capacities and knowledge of various subjects were enhanced. This critical 21-day training on FFS was carried out not only to ensure a harmonized approach to community engagement but also to enhance the capacities (knowledge and skills) of facilitators on key topics such as group formation and management, integrated water, soil, land, fodder and pest management, VSLAs and gender.

- 113 Several FFS facilitators interviewed by the evaluation team found, however, that the training was too brief and mostly theoretical, with too little focus on practical skills; three months of work were compressed into 21 days. Consequently, it was difficult for facilitators to build the capacity of FFS members. In some districts, the facilitators affirmed to the evaluation team that they were simply not capable of providing community livestock extension services, a specialized discipline as expressed by livestock farmers from several FFS. In some districts, FFS beneficiaries pointed out to the evaluation team that some FFS facilitators were inept in group dynamics, gender analysis and VSLA development. Because of the obvious differences in the capacity of implementing partners and their facilitators, the effectiveness and overall results from FFS varied per district and possibly per sub-county.
- 114 FFS networks were conceptualized to help groups of farmers address concerns such as lack of markets; price bargaining/negotiation for produce; on-scale purchase of inputs such as fertilizer; joint purchase for processors such as maize mills; processing of produce; and collective lobbying for development projects. Unfortunately, during discussions, there were frequent complaints from beneficiaries such as the lack of markets, poor prices and lack of networks meetings. The networks have neither lived up to project expectations nor addressed the members' needs.

Savings and loans

- 115 The GCCA project successfully supported the establishment and functioning of VSLAs among the FFS groups, through provision of training on managing village savings and lending associations. During validation, farmers sold the crops that were harvested from demonstration plots; in most cases the profits were invested into VSLAs. According to data from the Terminal Results Assessment Report (FAO 2017, p. 37), the percentage of GCCA farmer beneficiaries with membership in savings/credit groups increased from 30% before the GCCA project to 90% by the end of 2016.
- 116 The VSLAs have provided a safety net and risk coping mechanisms from which members can access funds through loans on a short notice. By doing so, members can consolidate local resilience mechanisms, which can help them to manage production risks.
- 117 The evaluation team found indications of strong ownership of the VSLAs, as this is the single activity that draws all members together. Many beneficiary farmers indicated that the VSLAs have saved them from predatory microfinance institutions and commercial banks, as well as loan sharks to access credit to meet their household emergencies.
- 118 The importance of access to loans for production is supported by the Terminal Results Assessment Report (FAO, 2017, p. 2), which found that ***“access to agricultural production loans in 2014 and 2015 had a positive and statistically significant effect on yields, across all the selected crops in general”***. The positive contribution from the GCCA project on farmers' access to production loans was also acknowledged by the Terminal Results Assessment Report (FAO 2017, p.2), which found that ***“80% of the GCCA beneficiaries interviewed had obtained agricultural production loans compared to 53% of non-beneficiaries”***. This finding implies that access to agricultural production loans should be emphasized in a future phase of the GCCA project, as a mechanism to increase the resilience of rural populations to the effects of climate change.

Mushrooms

- 119 Mushroom growing was promoted as a pilot initiative by the GCCA project, using a private company as the service provider. Mushroom production was identified as a high value food and an enterprise with a high return on investment, requiring little space and cheap labour, and which ranked high as a gender-friendly enterprise. More than 60 training of trainers and several farmers from 60 FFS (10 in each district) were trained in mushroom growing through the GCCA project. Some of the beneficiaries were provided with start-up kits for demonstration. FGDs with beneficiaries indicated that mushroom growing was duly appreciated as a climate resilient enterprise, in addition to its nutritional and medicinal value.

120 Mushroom enterprise is, however, not without challenges in terms of market access; deficiency of and high cost of spawn; key production requirements such as starter capital or inputs; voluminous water needs; and regular maintenance of solar driers. While the private service provider company has established a system to support marketing, it is still imperfect, with few collecting centers that require farmers to move long and costly distances to deliver their mushrooms. A strong and functional linkage between spawn producers, the Mushroom Growers Associations and Mushroom Marketing Associations has been formed under this project to collectively address these and other challenges. Likewise, FAO responded positively to the spawn deficiency by financing spawn production facilities in three districts⁴⁴.

Establishment of Bio-energy Plantations

121 This project component has to large extent delivered the expected project outputs within the agreed period⁴⁵:

- Out of the target of 100 ha of demonstration woodlots, 87.7 ha (87.7%) were achieved (Final Report). These demonstration plantations provide learning centres for community tree growers to improve the standards of their own woodlots. They have also inspired others to plant their own.
- Out of the target of 600 ha of commercial fuel wood plantations, MWE subsidized a total of 533.9 ha (89%). The contracts of those farmers who planted more trees than their initial contract size were increased to receive additional areas in order to realize 100% performance.
- Three improved charcoal retorts of 4 m³ were constructed – two in Mubende and one in Nakasongola. A change from 6 m³ to 4 m³ was justified to increase coverage and match with the operation capacity of the beneficiaries. Although the retorts have been constructed and are operational, the project has not had sufficient time to observe the operation and document specific lessons arising from their operation due to delays in procuring a service provider.
- A guide for best practices in bio-energy plantation establishment and maintenance was developed. This guide is awaiting funds from the last disbursement for its printing.
- Three research studies have been conducted in bio-energy plantation management and charcoal production systems in Uganda; the findings were disseminated in hard and soft copies through a workshop and field visits. The four research topics initially planned were reviewed and merged into three because two of them were related. Findings from these studies helped to educate the public and farmers on how best to invest in commercial charcoal production.

122 FGDs with beneficiaries confirmed that many FFS beneficiaries involved in bio-energy plantations have also established tree nurseries as a private business, and planted their own private woodlot plantations.

123 Interviews and site visits revealed that the demo plantations have already changed the micro-climate in the form of cool-breeze effects. Beneficiaries explained to the evaluation team that around the woodlot it is not as hot as in other areas where there are no trees. Not only are temperatures perceived as having cooled down, shade effects have also been created, which protects the vegetation underneath from the sun and acts as a wind break for desiccating winds that blow across the drylands in the dry seasons, causing severe loss of moisture from soils and vegetation and dehydration in humans and livestock.

124 Bio-energy woodlot and tree nursery uptake has been highest among the youth, since it is considered a source of ready cash. Tree nurseries have been established as income generation enterprises. Although several project beneficiaries indicated to the evaluation team that they had established private tree nurseries and woodlots following training received from FFS demonstration sites, the full exploitation of opportunities made possible by such enterprises were not yet being taken advantage of. For example, none of the project beneficiaries the evaluation team interacted with kept livestock. Some livestock farmers had established biogas as a source of clean energy for cooking and lighting.

44 Luwero, Nakaseke and Nakasongola.

45 Final Bio-energy report.

- 125 The GCCA project successfully provided support for the construction, usage and maintenance of energy saving stoves. During the evaluation field visits, the evaluation team observed a number of households using energy saving charcoal stoves and data from the Terminal Results Assessment Report (FAO 2017, p.38), confirming a high adoption rate: While only 4% of the FFS households were using energy saving stoves before receiving GCCA project support, this number had increased to 30% by the end of 2016.
- 126 Different implementing partners in the GCCA project districts have supported households to construct energy saving stoves. All beneficiary households visited where energy saving stoves were constructed spoke about the ease of their construction. The energy saving stoves are constructed by the women themselves, using local materials, as are the clay mounds used for their construction. They reduce harmful smoke emissions that affect not only the environment but also the health of women. The stoves are more effective because heat is not lost, and the same amount of firewood can cook twice the amount of food at the same time, when compared with the traditional three stone cook stand. The households therefore use less firewood. There are also less risks of food tipping over and pouring, or burning children. Despite the latter, not all GCCA project beneficiary households, or those FFS involved in bio-energy plantation, have adopted energy saving cook stoves because of lack of permanent kitchen facilities.

Coffee plantation/ production

- 127 The deliverables within this component were highly satisfactory and passed the initial targets:
- Around 12 000 farmers were trained on climate adaptation for coffee (compared to an initial target of 10 000).
 - 420 farmer groups were established and/or supported (compared to an initial target of 380).
 - Eight coffee nurseries have been established (three are run by women).
- 128 Focus group discussions with coffee farmers confirmed a high uptake of coffee growing and multiplication technologies from the demo sites to the individual holdings of the respective farmers. In fact, when technology uptake is compared across the different categories of beneficiary farmers, it was highest among coffee farmers. Below-ground water harvesting tanks provided to tree nurseries and coffee farmers have enabled the farmers to plant year-round. Those who have coffee nurseries sell seedlings year-round because they irrigate the seedlings in their nurseries. According to the Terminal Results Assessment Report (FAO, 2007, p.3), ***“At least 86% of GCCA beneficiaries indicated that they have planted shade trees for their coffee gardens”***. Research studies to identify, test and evaluate farm adaptation strategies on climate change related to shade systems and coffee seeds were conducted, and their results were applied in the field: coffee farmers and nursery operators have mainly been planting those seeds and seedlings that showed the best performance over the tests.
- 129 The beneficiaries affirmed that they have been using the same technologies and strategies to grow other crops, which was also a recommendation from the project. They are growing banana, maize and cassava, among others, and use these crops for consumption while selling or distributing the surplus to their neighbors.
- 130 The GCCA project has also stimulated the creation and maintenance of networks to bring the coffee farmers together to negotiate with and deliver to the market. According to farmers attending the FGDs, most of these networks are working well. Producers are in direct contact with the coffee market. According to members of coffee farmer groups, network members sit together at least once a week to discuss production and market strategies. The frequency and scope of the meetings are a result of the farmers’ own initiative.
- 131 In most districts, the impact of the coffee wilt of the 1980s was so devastating that coffee was no longer considered as a serious cash crop, until the GCCA project started. Now coffee trading has become a good business in these districts. Even those who have small plot of

land under coffee look after it very well. In Nakasongola in particular, the evaluation team came across several examples of farmers shifting from cattle to coffee farming.

- 132 Increased sales from coffee farmers have been one of the most impressive results of the project. The coffee growers earn income from both coffee and bananas, which is the crop of choice for intercropping. The FGDs with benefitting coffee farmers confirmed that most of them had improved their income within two years of planting coffee and expected to continue increasing their income with every passing year, as more of their coffee plants become mature. This evaluation finding is fully in line with results from the “Economic Analysis of the Farmer Field School Approach Based on its Contribution to Smallholder Farmer Livelihoods and Incomes in Northern and North-eastern Uganda” (FAO, 2016, p.8)”, which concluded that in the cattle corridor “(...)the *post-FFS farmers’ output for most crops was much higher than the pre-FFS levels* “. This was particularly the case for maize, coffee, banana and potato production.
- 133 Also according to FGD participants, the workload has increased due to the increased coffee production activities related to CCA practices. Consequently, some farmers are hiring workers to help them in the field. Most of the hired workers are people from the community, mainly women.

Constraints to FFS implementation and adoption under Result Area 3

- 134 Land ownership remains an unsolved challenge, as many women do not own land, yet they dominated the FFS groups. This was initially aggravated by the initial design, where only one member of the family was allowed in the group. This was less of a challenge where both the woman and spouse attended sessions of gender sensitization and awareness in which attitudinal change was a recorded outcome.
- 135 The requirement to start-up capital and land for implementation of activities, such as mushroom growing, coffee and bioenergy plantation, has limited the possibility of uptake within these areas.
- 136 The short nature of facilitators’ contracts, especially under the extended support phase (European Union vs Belgium), affected the validation of perennial crops and livestock options (such as testing for productivity effects due to the nature of feeds or genetic performance, and risks due to pests and diseases in animals); these activities requires more time and could not easily fit within the 18-month FFS cycle.
- 137 Despite the efforts of the GCCA project, limited access to water for the production of both crops and livestock remains a major problem in the area. Small-scale water harvesting from roofs or underground tanks at demonstration sites (or model farmers’ homes) only works for a few beneficiaries with iron roofs, and those who can afford to buy the collection tanks. Even fewer can afford to construct personalized dams without financial assistance. In all six districts, access to water was the most frequently mentioned challenge to the adaptation technologies.
- 138 Adoption of bioenergy plantations (see below) was limited mainly to neighbors surrounding the demonstration plantations and the 25 commercial farmers who have been subsidized. While the benefits of engaging in bioenergy plantations were appreciated, it was clear that production of wood fuel on a commercial basis requires a substantial amount of land, which many farmers do not have. Records show that adoption has mainly taken place only in three districts (Luwero, Nakasongola and Nakaseke) in spite of demonstrations having been carried out in all districts.
- 139 Despite the success of coffee production at the output level, some issues related to the selection criteria may have improved the results. First, the implementing partner did not select the poorest of the poor, since before the intervention the beneficiaries had at least some land on which to grow crop. Second, some of the beneficiaries were already growing coffee before the project implementation; among them, some were even part of other projects implemented by the same implementing partner in the region. On the other hand, many others farmers were reached for the first time by the project.

3.2 Evaluation Question 2 – To what extent has the project built partnerships?

Finding 12: *The GCCA project has successfully applied different mechanisms for selecting project partners based on comparative strengths and their particular role in the project.*

Finding 13: *The GCCA project has successfully demonstrated how complementary donor funding and partner diversification can lead to establishing new partnership alliances across sectors and public-private institutions.*

Finding 14: *The planning and coordination of interventions among project partners working in the same areas and communities was not always smooth. This resulted in some ineffectiveness in the support to FFS communities.*

- 140 The partnership with the European Union provided the foundation for the GCCA project. Through the climate change donor working group, the Government of Belgium also became interested in contributing to the GCCA project objectives, providing support to a set of complementary interventions to those funded through the European Union funding. In addition, the GCCA project has coordinated activities with the United States Agency for International Development/Feed the Future and United Nations Development Programme-funded projects in the same area.
- 141 A number of different mechanisms were used by FAO to engage in partnerships in the project. A few partners were selected due to their specialized knowledge and based on past performance records with the European Union and the Government of Uganda. Other partners were selected based on tender procedures, although with different selection criteria (e.g. the implementing partners selected for implementation of the traditional FAO FFS approach were selected mainly based on recommendations from the DLGs).
- 142 The choice of partnerships for the GCCA project was largely done to ensure complementarity and synergy of the project interventions. This is was the case both at the national level (e.g. the decision to involve MMAIF as well as the MWE as key project partners, despite the historical tension between these two ministries over implementation of Water for Production investments), as well as at the district level, where the selection of implementing partners was driven by the aim to also include partners who could promote alternative livelihood opportunities in addition to the focus on the traditional FFS approach (e.g. market-oriented activities).
- 143 A Joint Technical Team comprising the Water for Production Department in MWE, MAAIF and the DLGs was established for the joint participatory management of water facilities that were being constructed. The team was responsible for coordination and provision of technical guidance and oversight during the construction of the hardware, as well as development of software for management of valley tanks. The team faced cooperation challenges and field monitoring exercises often were not properly coordinated between MWE and MAAIF.
- 144 The partners were involved in the project design process to a varying degree. The main part of the project design was done by the European Union (overall concept and scope), and by FAO through consultations with key governmental partners such as MAAIF and MWE. The districts were also involved in the later stages of the design process. Implementing partners and research institutes only became involved later on, and had limited influence on the project design.
- 145 The GCCA project has contributed to strengthening existing partnerships as well as establishing new ones. The project has allowed FAO to improve its long-term relationships and strategic partnerships with institutions such as MAAIF, Makerere University and the National Agriculture Research Institute. At the same time, the project has allowed FAO to explore new strategic partnership opportunities both in relation to governmental institutions (e.g. with the Climate Change Department) and the private sector, as well as with different types of NGOs. There is room for improvement, however, regarding the

strategic partnership with the Uganda National Meteorological Agency on climate change forecasting.

- 146 Among the partners, the evaluation team identified challenges related to coordination and cooperation activities. A certain level of information sharing was taking place among the implementing partners with local presence in the districts (e.g. during review meetings organized by the DLGs). It has been more challenging to engage the partners from outside the district in the joint coordination and planning events and this has resulted in some uncoordinated actions at community level. A number of examples were provided by the local implementing partners, where partners from outside had arrived to the communities without informing the implementing partners properly.
- 147 The difficulties in making partnerships work effectively across the various GCCA projects are also linked to the different incentives among the partners. In addition to the GCCA project, the partners work on different agendas and basically compete for the same (limited) funding sources.

Partnerships with District Local Governments

- 148 The partnership between FAO and the six selected DLGs in the central cattle corridor has been a cornerstone of the GCCA project. DLGs were potential beneficiaries of various capacity development activities; at the same time, they were tasked to perform a supervising and coordinating role in relation to the different project stakeholders within the districts.
- 149 The DLGs indicated that the GCCA funding was not flexible enough to make it possible for some of the funding to be administered by the DLGs. Moreover, district and sub-county extension staff were excluded by the implementing partners. Some of the implementing partners left the district, though if district staff had been incorporated the capacity they received through training would have been retained. None of the implementing partners donated any of the equipment they purchased with funds provided under the project (especially the motorcycles) to the DLGs.
- 150 Through the field visits the evaluation team noted that the capacities within the DLGs varied significantly, which would affect the ability of some DLGs to perform their expected partnership roles and responsibilities in a satisfactory way. The GCCA project has not explicitly addressed these capacity gaps within some of the DLGs, and expectations varied accordingly.
- 151 Some DLGs emphasized the importance of the GCCA project as leverage for strengthening their partnerships with the implementing partners, as well as for developing of new partnerships with NGOs working in the area of CCA and livelihoods in the region.

Partnerships with Implementing Partners

- 152 The GCCA project applied an interesting and innovative approach to partnerships with the implementing partners: instead of using a standardized set of criteria for selecting the implementing partners across all six districts, the implementing partners were selected with different objectives in mind. Some implementing partners were selected through tendering processes, while others were selected for their unique abilities. Thus, the implementing partners represent different capacities, approaches, incentives and local knowledge.
- 153 The largest group of implementing partners⁴⁶ were selected mainly due to their presence in the districts and existing knowledge and working relationships with local stakeholders and communities. It was a strong recommendation from the DLGs that these criteria would be applied for selection of implementing partners to implement the FFS training. It was expected that this would facilitate project implementation and strengthen sustainability and

46 Caritas Kasanaensis, the Hunger Project, Lutheran World Federation, Sembabule District Farmers Association, Nakasongola District Farmers Association (NADIFA) and C-CARE were all selected on this basis.

ownership aspects. At the district level, the GCCA project to a large extent build on already existing working relations and partnerships between DLGs and implementing partners.

- 154 The evaluation team found clear advantages of using NGOs with a local presence to perform the role as implementing partners. The team visited communities where the 18 months FFS training had been completed more than a year ago. Although the implementing partners were not obligated to provide follow-up visits to the FFS training, the implementing partners with local presence in the districts in most cases had continued their engagement within the communities. This was considered very important from a sustainability perspective.
- 155 The main reason that the local implementing partners continued their engagement within the FFS communities after completion of the FFS training is that they are implementing other development projects within the same communities. Some of these projects provided useful complementarity to the GCCA project (e.g. tree planting and provision of small household water tanks). This could be seen as positive from an efficiency perspective and convenient for the implementing partners.
- 156 However, using implementing partners with well-established community networks in the districts could result in “elite” communities receiving support from multiple development projects, at the cost of relatively weaker communities that might be more in need. The implementing partners even referred to the communities where they worked as their partner communities, in which capacities and trust had been developed over time. This potential exclusion of communities that were not within the radar of the implementing partners seems was not explicitly addressed by the GCCA project.
- 157 The partnership with the implementing partner for coffee production represents a special case. The implementing partner was selected based on recommendations from the Government of Uganda and the European Union, given that the organization had previous experience from working with coffee in the cattle corridor. The implementing partner returned to the communities they had worked in previously (and where they had established good working relationships). For this implementing partner, the GCCA project provided an opportunity to pilot test new coffee production techniques in these communities, and to use this experience more widely in the region.
- 158 The partnership with the implementing partner for mushroom production can also be considered innovative. During the design stage, there was an interest to pilot this value chain development approach based on mushroom production. It was decided to engage with a private sector company which provided training as well as processing equipment and seeds for the project farmers, and facilitated transport and access to the market (even though the producers still face some difficulties related to transport and market access, as observed in the result analysis on the result area 3).
- 159 In addition to these implementing partners, partnerships were established with Makerere University, which was responsible for implementation of the Knowledge Management Component. Seen in a forward looking perspective, this partnership is very interesting since Makerere University is seen as a potential host for the knowledge management system after the completion of the GCCA project.
- 160 Partnerships were established with research institutes⁴⁷ to provide targeted technical inputs and demo trials to the FFS. These partnerships built upon well-established cooperation between FAO and these institutions. For the research institutes this was a good opportunity to engage in partnerships with the implementing partners. Some of these partnerships are now continuing onto other projects (e.g. cooperation between some of the research institutions and implementing partners working in the districts).
- 161 Finally, the GCCA project entered into a partnership with the Sawlog Production Grant Scheme for biofuel production. The scheme is specialized in commercial fuel wood plantations and has received project funding from the European Union through several phases.

⁴⁷ The National Agriculture Research Institute (NARO), the National Livestock Resources Research Institute (NALIRRI) and the Mukono Agriculture Research and Development Institute (MUZARDI).

3.3 Evaluation question 3 – To what extent has gender mainstreaming and support to the most vulnerable groups been embedded in the project interventions?

Finding 15: *The project has promoted gender equality by building knowledge and capacities aimed at increasing resilience and coping with climate change. The most progress was made in relation to coffee production. A gender focus in FFS was improved later in the project, and positive results have started to emerge.*

Finding 16: *Although youths have benefited from the GCCA project interventions, its design and approach was not particularly youth-friendly.*

Finding 17: *Children indirectly benefited from the project, though more attention must be given to prevent them from dropping out of school or performing tasks inappropriate to their age group.*

Finding 18: *People who were disabled or illiterate were not taken into special consideration in either the project design or implementation.*

Gender

- 162 The project document states that *“particular attention will be dedicated to gender issues during the formulation phase”* and *“the project will aim at promoting gender equity in the access to knowledge and capacities as well as to the benefits from project investments”*. Indeed, from the design to the implementation, project management and implementing partners have worked together to include an equitable number of men and women in project activities aimed at improving knowledge and capacities to cope with climate change. These activities included FFS, farmer groups and training courses. This effort led to successful results and women progressively increased their participation in these activities. According to project records, women beneficiaries constituted 46% of FFS group members (both FFS contracted to the six implementing partners and the coffee adaptation groups).
- 163 Although the project formulation and implementation considered equity in the access to knowledge, capacity and investments, initially it did not address gender equality and gender empowerment as a result. This concern only came into attention in 2014, when a gender analysis was conducted and specific activities were designed to promote the results at national and district level.
- 164 At national level, the project supported a gender review of the project document, hired a gender focal point, and supported the creation of a set of indicators and targets combined with a baseline study. At this stage, a framework for mainstreaming gender in climate change was developed, which is now a key document for FAO Uganda.
- 165 At district level, the project promoted the capacity building of implementing partners on gender and climate change; a Gender Action Learning Systems methodology for the FFS facilitators; a gender stocktaking exercise; and capacity building for DLGs on tools for gender analysis, implementation, gender responsive budgeting, gender sensitive indicators, M&E and gender action learning systems in the context of climate change and agriculture.
- 166 Despite delays in addressing gender issues effectively through FFS, the GCCA project interventions produced positive effects at district and community level, especially with regard to confidence, awareness and participation.
- 167 Results from the online survey showed that both DLG staff and FFS facilitators have improved their knowledge and skills on gender-related issues. According to the survey results, the average “knowledge on gender aspects related to climate change in agriculture” increased from “some level of knowledge” before the GCCA project was initiated to a “high level of knowledge” after the project interventions. The survey results were confirmed

through meetings with implementing partners: both men and women representing the implementing partners confirmed that they are now more conscious about the importance of promoting gender equality, and they feel confident to integrate gender-related topics as part of FFS.

- 168 Despite mainstreaming gender since 2014, activities aimed at promoting gender empowerment and equality, as well as the results in these areas, are not homogeneous throughout the different types of interventions. They also vary according to the implementing partner present in each district, since each partner has its own complementary gender policies and actions which sometimes differ from those taught by FAO.
- 169 According to interviews with implementing partners and other key informants from the districts, from the beginning of the project women have progressively become more committed than men to attending FFS and implementing the practices learned. In many cases, they are responsible for growing fruits and vegetables for household consumption, producing mushrooms or other sources of income, and managing water systems. Thus, women who once were passive beneficiaries have become active participants.
- 170 Concerning the beneficiaries from farmer groups for coffee production in Luwero, Nakaseke and Nakasongola, both male and female beneficiaries perceived gender equality at household level as a result of the project intervention, including in decision-making. Implementing partners and other key informants, as well as the desk review (FAO reports on gender mainstreaming in the GCCA project) confirmed this evidence. Gender equality, as defined in the FAO Policy on Gender Equality, is a reality for coffee farmers at household level.
- 171 According to beneficiaries, coffee production was initially intended only for men; due to the project, however, women have begun to participate as well (though they are not equally represented). During the FGDs many participants stated that men are working more closely together, as opposed to on their own. As an example, many women and men mentioned that now they both look after their children's needs. A reduction in gender-based domestic violence was also mentioned by some beneficiaries as a result of the project intervention. This may be attributed, among other activities, to the "couples seminars" conducted by the implementing partner.
- 172 Some coffee farmers and nursery operators have increased their workload, and thus have hired people to work on their land, including women from families who were not project beneficiaries. This is an example of positive unintended impacts.

Youth and children

- 173 Although youth were welcome to participate and benefit from the project activities, and some of the beneficiaries were indeed youth, specific support to engage youth in agriculture was not considered in the project design and implementation.
- 174 FGDs with youth and visits to FFS communities confirmed to the evaluation team that many youth whose parents were project beneficiaries did not find agriculture attractive and were looking for other opportunities. This finding is supported by a recent FAO, International Fund for Agricultural Development and CTA publication, "Youth and Agriculture: Key challenges and concrete solutions", which concluded that although youth account for a relatively large percentage of the rural population, and despite the need for a large agricultural labour force, youth are often unemployed or underemployed, since they "**do not perceive agriculture as a remunerative or prestigious profession**".
- Although children were not part of the project design, FGDs with FFS beneficiaries confirmed that they had benefited from project results in different ways.
 - Many beneficiaries, mainly farmers and nursery operators, have increased their income due to the project intervention and were able to pay the school fees for their children.
 - Due to the FFS, beneficiaries grew more fruits and vegetables, and sometimes increased their incomes due to agriculture. As a result, their children ate more nutrition food, and the condition of their health increased.

- 175 Due to the trainings on gender, beneficiaries' family planning activities began to include children. Parents viewed their children's needs as a family priority (especially among coffee producers).
- 176 On the other hand, FGDs suggested that 15-17 year-old children have dropped out of school, either to help their families with the increased workload (e.g. coffee production) or to save money needed for increasing investments (e.g. in relation to mushroom production; examples were provided where parents had taken their older kids out from school to save money from the fees to reinvest in production).
- 177 Due to the increasing workload, there was a noticeable risk of children starting to perform tasks in agriculture that are not appropriated to their age group⁴⁸. Some FFS beneficiaries whose workload has increased confirmed their willingness to employ children (e.g. some of the coffee nursery operators reported that they hired children to perform light work after school⁴⁹). However, due to the scope of the evaluation, it was not possible to collect sufficient data to assess whether these activities were in violation of the Ugandan constitution⁵⁰ or the ILO convention on child labour⁵¹, which was ratified by the country. In any case, these indications should be considered as a potential risk in further project designs.

Illiterates and peoples with disabilities

- 178 Training material or awareness campaigns were not developed for those who were illiterate or disabled. In fact, these groups were not even mentioned in the project document and letters of agreement. However, training and capacity development activities were provided in the local languages. The evaluation team concluded that since the type of activities developed under the GCCA are physically demanding, the disabled would be more suited to social protection interventions.
- 179 FGDs with FFS beneficiaries in the communities and interviews with key informants from FAO and implementing partners confirmed that activities were not developed under the GCCA project to address people with special needs in the communities.
- 180 The majority of the project materials was written in English with few visual resources, so they have not reached illiterates and people who do not speak English.

3.4 Evaluation question 4 – To what extent is the project creating ownership among stakeholders, government and beneficiaries?

Finding 19: *The GCCA project contributed to increased ownership and mainstreaming of climate change planning and coordination processes within key ministry sectors and DLGs. The project also supported the development and implementation of institutional, policy and legislative frameworks to sustain the initiated climate change processes within ministries, DLGs and at community level.*

Finding 20: *Some implementing partners have provided follow-up trainings and demonstrations within FFS communities; however, this will not be sufficient to support a wider uptake and replication of new practices. Systematic planning and preparation for post-FFS scenarios will be needed.*

Finding 21: *Some of the more recently implemented project activities (e.g. knowledge management system, FFS networks) have not created sufficient ownership and will require additional support.*

48 According to ILO Conventions and Recommendations on Child Labour”:

49 According to the Constitution of Uganda, children is every person aged below 18.

50 The Constitution of Uganda, 1995, Chapter I, Article 34”: “children are entitled to be protected from social and economic exploitation and should not be employed in or required to perform work that is likely to be hazardous or to interfere in their education, or to be harmful to their health or physical, mental and spiritual, moral or social development.”

51 <http://ilo.org/ippec/facts/ILOconventionsonchildlabour/lang--en/index.htm>

- 181 Through support from the GCCA project, the policy framework for CCA in Uganda has improved remarkably since 2013 and strengthened the foundation for further consolidation and strengthening of CCA practices. An important step and commitment was made in the First Budget Call Circular for fiscal year 2017/18 (issued by the Ministry of Finance, Planning and Economic Development to all ministries, departments and agencies and DLGs), which required these institutions to include climate-smart policies, plans and investments priorities in their Medium-term Expenditure Frameworks, on which financial appropriations under the national budget are based. The support from the GCCA project to the development of a Draft Climate Change Bill presents another important move toward stronger institutionalization of the CCA concept in the country.
- 182 The establishment of Climate Change Task Forces at both ministerial and district government level has contributed to increased ownership of the CCA planning processes linked to these institutions. The usefulness of these task forces for climate change coordination within the districts has been recognized by most of the DLGs. At district level, where DLG is chairing the task force, plans for covering the operational costs of the task force (costs which were initially covered by the GCCA project) have been developed among the participating organizations and institutions that want the task force to continue after completion of the GCCA project.
- 183 The continued presence of implementing partners in some districts allowed these organizations to carry out follow-up consultations and visits to the communities after completion of the FFS training. These follow-up visits were mainly undertaken when the organizations were implementing other projects within the FFS communities.
- 184 A level of financial capacity and sustainability has been generated in the FFS groups, mainly through VSLAs. FGDs with group members and interviews with implementing partners confirmed that in most FFS groups the VSLA was functioning well and had contributed to the creation of ownership, group dynamics and social cohesion within the group.
- 185 Direct involvement of the private sector (for value chain development) and establishing of public-private partnerships has created an important base improve the marketing and selling of the increased production.
- 186 Support from the GCCA project for establishing nurseries was another important element to sustain and further increase production levels within certain sectors. As an example, coffee nursery seedling operators in Luwero and Nakasongola district are now supplying seedlings to fellow farmers in their districts and beyond, as well as to government programmes such as Operation Wealth Creation and the Uganda Coffee Development Authority. They also provide seedling for other development partners supporting coffee production. These activities are expected to continue after completion of the GCCA project.
- 187 The inability of some DLGs to fully adopt the CCA agenda threatens the sustainability of some project-supported interventions. One example is limited operational budgets and resources for carrying out continued consultations at sub-county level for CCA planning processes.
- 188 A wider uptake and replication of FFS practices from the larger demonstration farmers and their neighbours to other FFS and non-FFS members within the communities is still relatively limited within some areas, partly due to the scarcity of water and the recent completion of the FFS training and demonstrations within some communities. A more systematic follow-up will be required to further sustain and replicate the introduced FFS practices.
- 189 The ability of farmers to adapt to introduced FFS practices was in some cases constrained by limited access to financial capital and land (e.g. irrigation technologies, water harvesting systems, mushroom and coffee production). In relation to coffee, the ability of beneficiary farmers to sustainably adapt to climate change also depends on their ability to integrate the cultivation of food crops to reduce lack of food, but also to diversify the on-farm agricultural enterprises in which households are engaged.

- 190 The increasing production levels in the cattle corridor will create new requirements in the near future for handling, storage, processing and marketing of the products if the farmers maintain the incentives to increase production above the subsistence level. These issues have already started to become a challenge in some districts and will only become more of an issue if production levels continue to increase (as expected) over the next couple of years. The engagement with private sector partners (for value chain development) seems important as a mechanisms for direct access to market opportunities.
- 191 The recently established FFS networks are still fragile structures. During FGDs, many farmers explained that they did not find the networks to be very useful, and there was limited incentive to participate. There is a need to soon make these networks more operational and beneficial to the farmers, if they should survive as institutions.
- 192 The FGDs with community members revealed that Watershed Management Committees established with support from the project will require additional technical and organizational support to become fully functional and operational.
- 193 The knowledge management system was recently installed and is in the process of being implemented. Equipment (computers) have been provided to the DLGs and a basic training provided. However, a continuous support will be needed to ensure that the DLGs will take ownership of the system and that it will be properly and purposely used. This will include future allocations of DLG budgets for maintaining and operating the equipment. Capacity gaps within some DLGs may create particular challenges.

4. Conclusions

194 The following conclusions were reached based on the findings of this final evaluation and on the evaluation questions.

Conclusion 1 (Design): *The GCCA project was well-designed and highly relevant in terms of approach, geographical focus, partner selection and topics introduced. The project served as an important “laboratory” for simultaneously testing innovative elements linked to CCA within an FFS approach (e.g. livestock, coffee, mushroom, bio-energy plantations and public-private partnerships), supported by appropriate institutional arrangements and access to water. Although the majority of these activities have yielded positive results, there is a need for adjustments and continued support within some areas.*

195 The GCCA project formulation was based on thorough consultation processes and builds on the experiences of other projects, in particular those addressing CCA and use of the FFS approach.

196 The FFS approach was highly and widely appreciated, and useful to the beneficiaries due to its participatory and practical nature. Implementing partners have adopted and are using the FFS approach in other projects.

197 The GCCA project successfully combined targeted support to national policy decision-makers with support to local administrations and communities. The decision to focus awareness-raising activities within strategic national policy institutions (e.g. Parliament; Ministry of Finance, Planning and Economic Development; Ministry of Local Government; and the Ministry of Agriculture, Animal Industry and Fisheries) has been of crucial importance to ensure the harmonized and integrated institutionalization of climate change planning processes at national and local levels.

198 The project implementation plan underestimated the complexity of inter-ministerial cooperation and administrative procurement processes. Consequently, Component 2 activities (construction of valley tanks) were seriously delayed, limiting the potential production increases resulting from Component 3 interventions.

Conclusion 2 (Results): *The project made an important contribution by highlighting Uganda’s position among the leading countries in Africa undertaking CCA and building resilience. A number of positive socio-economic developments have started to materialize from the project interventions within beneficiary communities, and there are signs of improvement in the resilience of agricultural production systems in the cattle corridor. The support for strengthening institutional framework has been effective, although capacity gaps remain.*

199 Project achievements were very satisfactory within two of the three project components (Component 1 and Component 3), but less so within Component 2 (valley tanks). Delays in the construction of valley tanks prevented farmers from applying the skills and practices introduced through the FFS demonstrations.

200 The GCCA project contributed to capacity strengthening on CCA at both national and local levels (Component 1), and these capacities are being applied both institutionally and individually. In particular, knowledge on how to plan and mainstream CCA across different sectors and at district level has been useful to the institutional beneficiaries. The challenge ahead will be to ensure sufficient institutional sector capacity and funding to respond to climate change challenges and implement the plans.

201 The GCCA project has been instrumental in providing CCA “stories” and high-level representatives (from Parliament) at the international level (e.g. the United Nations Framework Convention on Climate Change Conference of Parties) which was contributed to shaping the “adaptation profile” of Uganda. However, serious capacity gaps within some DLGs limited their ability to benefit fully from the project support. The use of more

differentiated or scaled support to the DLGs would have been more effective.

- 202 The experience from the GCCA project shows good potential for transforming pastoralism through improved access to water in the cattle corridor (Component 2). The project successfully demonstrated that enhanced opportunities for access to water for livestock production help cattle farmers to improve their pastures. Likewise, the farmers have adopted improved livestock husbandry practices and diversified their livestock-based enterprises away from traditional pastoralism practices by focusing on the livestock value chain, especially milk and milk-based products.
- 203 There was some increased appreciation for and adoption of small-scale irrigation systems. Moreover, extensive cultivation of different types of crops was undertaken year-round in places where it was previously considered untenable. Access to water for crops made it possible for beneficiary communities to easily adopt climate smart crop cultivation.
- 204 There were strong indications that access to food and nutrition is improving among cattle farming families due to a more diversified food intake, particularly vegetables and mushrooms. Likewise, there are signs of increased income and savings through Village Savings and Lending Associations in the cattle farming communities, and from sale of food produced in excess of what the households can consume (e.g. bananas and crops like coffee). Together these developments have positively influenced children's school attendance in the area, and the overall livelihoods of project beneficiaries.
- 205 The resilience of the agricultural production systems in the cattle corridor is improving, although the actual uptake of some newly demonstrated practices remains limited and mainly concentrated around the demonstration farms. The project has provided community members with an understanding of the concept of CCA, which was initially vague and not well understood by many. In all six districts, access to water was the most frequently mentioned challenge to the adaptation technologies. Increased mutual trust, safety nets and coping mechanisms developed within the communities and the micro irrigation schemes also encouraged farmers and communities work together.
- 206 When the valley tanks become fully operational (and if a second phase of the GCCA project is launched), agricultural production levels and resilience are expected to increase further within the cattle corridor. Farmers who have already adopted the new FFS practices have not been able to realize their full potential due to water shortages in the area. Likewise, if a second phase of the GCCA project is launched, this will likely contribute to increased adoption and uptake of FFS-promoted practices within communities in the cattle corridor.

Conclusion 3 (Partners, partnerships, coordination and alignment): *The project made important contributions to partnership development (including public-private partnerships) and building alliances. The project funding provided by the European Union and Belgium was an excellent example of alignment and complementarity within donor funding. The project benefitted from working with locally represented implementing partners, but more could be done to ensure better coordination and planning of interventions among partners.*

- 207 Some DLGs and the National Agriculture Research Institute expanded their partnership bases with both civil society organizations and private companies due to participation in the GCCA project. Likewise, FAO bolstered its role in Uganda as a strategic convener of CCA between different institutional and administrative levels.
- 208 The larger-scale investments provided through European Union funding were complemented and replicated by the funds provided by the Belgian government for smaller-scale investments. This has allowed for gap-filling as well as for replication effects.
- 209 The decision to engage implementing partners with a strong local presence made it easier to follow up on FFS training, and to transfer knowledge to other communities in the district. However, using implementing partners with well-established community networks could result in "elite" communities receiving support from multiple development projects, at the cost of relatively weaker communities that might be more in need.

- 210 Planning and coordination of FFS interventions among partners working within same communities, sub-counties and districts was insufficient. This caused problems in the timing and adequacy of some deliveries (inputs and services) to the communities, as well as ensuring that FFS facilitators were sufficiently capacitated and informed to follow-up on inputs provided by other partners.

Conclusion 4 (gender, youth and other vulnerable groups): *Positive gender results were observed, particularly in relation to coffee plantation activities. As a result of the project, men and women were more likely to share and plan working tasks, both in the field and within their families. Although the gender focus in FFS was strengthened only toward the end of the project, the results have started to improve. There were also indications that children benefited from the project, through increased school attendance and improved nutrition. Some youth, however, dropped out of school or engaged in economic activities that were not appropriate for their age. This was due to the increase in beneficiaries' workload and consequent need for more labour. The project had only a limited focus on the needs and opportunities related to other vulnerable groups (such as youth and people with disabilities).*

- 211 The gender focus and results in FFS were uneven across districts and sub-counties due to inadequate/varying knowledge and skills among implementing partners on how to approach gender issues in training activities.
- 212 The best gender results were found in relation to the coffee production activities, where the implementing partner applied the household approach for FFS groups (i.e. participation of men and women together). Such an approach was later implemented by other FFS groups.
- 213 The process for selecting participants for the FFS groups was not inclusive, and the project design did not include the most vulnerable groups as beneficiaries. The introduction of FFS activities, such as mushroom farming, coffee growing and bioenergy plantations, tended to exclude vulnerable and poor farmers who do not have access to start-up capital and/or land.
- 214 The GCCA project was not youth-friendly and did not fully address the challenges of youth employment in agriculture (SO 3 and SDG 8). Only a few smaller interventions (e.g. bioenergy plantations) were focused on youth.
- 215 Although children were not part of the project design, FGDs with FFS beneficiaries confirmed that they have benefited from the project results (e.g. increased school attendance and improved nutrition). On the other hand, FGDs indicated that 15-17-year-old children have dropped out of school either to help their families with the increased workload or to save money needed for additional investments.
- 216 Land ownership issues remain an unsolved challenge, particularly as many women do not own land (although they initially dominated the FFS groups). The introduction of the household approach helped to reduce tensions associated with women's access to land.

Conclusion 5 (Ownership and Sustainability): *The project contributed to increased ownership and mainstreaming of climate change planning and coordination processes within key public sector institutions, and provided a useful framework for continued development within this area. There was limited strategic consideration on sustainability issues (wider replication and post-project uptake of practices) in relation to the FFS support, although locally represented implementing partners acted as a safety net for many FFS communities. Going forward, additional and complementary support will be required to sustain production increases resulting from the project support, as well as some recently implemented network activities.*

- 217 The GCCA project support contributed to increased ownership and mainstreaming of climate change planning and coordination processes within key ministry sectors and DLGs (e.g. through the Climate Change Task Forces), as well as the development and implementation of institutional, policy and legislative frameworks to sustain the initiated climate change processes within ministries and DLGs.

- 218 The sense of ownership of the District Climate Change Task Forces established with support from the GCCA project is high within the DLGs leadership. The usefulness of these task forces for climate change coordination within the districts is now recognized by the DLGs. Task force members in several districts agreed to share operational costs to sustain the functionality of the task forces, which would be continued even after completion of the GCCA project support.
- 219 The Watershed Management Committees, established with support from the GCCA project, will require additional capacity development support to become fully functional and operational.
- 220 The continued presence of implementing partners in some sub-counties/communities after completion of the FFS training and demonstrations is an important factor for sustaining and replication of the practices introduced through FFS. The continued functioning of the established VSLAs could also act as financial safety net for FFS groups.
- 221 Follow-up visits to FFS communities were undertaken mainly when the implementing partners were implementing other programmes or projects within the same communities.
- 222 The increased crop and livestock production levels in the cattle corridor created new requirements for handling, storage, processing and marketing of the products, to incentivize farmers to increase production above the subsistence level. These issues have already become a challenge in some districts and will become more of an issue if production levels continue to increase (as expected) over the next couple of years. The engagement with private sector partners (for value chain development) seems important as a mechanism for direct access to market opportunities.
- 223 Some recently initiated GCCA project interventions will require continued and additional support to become sustainable. This is the case for the established FFS networks and the knowledge management information system, which will still both require substantial technical support.

5. Recommendations

224 The following recommendations are suggested based on the findings and conclusions of this evaluation.

Recommendation 1 (Design): *The GCCA project support should be continued through a second phase, with a continued focus on capacity development, partnership development (including public-private research), access to water and use of the FFS approach within the cattle corridor.*

225 Additional districts should be considered in phase 2, while at the same time consolidating the activities and following-up within districts supported in phase 1.

226 The phase 2 design process should include a more thorough risk assessment and realistic timeframe, particularly when it involves different ministries and procurement processes. FAO should consider how to improve procurement procedures for the project. Given the complexity of these interventions, the evaluation team recommends that a minimum time frame of five years should be considered for a second project phase.

Recommendation 2 (Capacity Development): *The second phase of the GCCA project should continue to support capacity development interventions at both central and local government levels, based on the positive results from phase 1. Phase 2 interventions should aim to progress from raising awareness on climate change impacts to improving agriculture sector capacities to respond to climate change challenges. More specifically, this should include:*

227 A move from supporting climate change mainstreaming across sector plans (phase 1) to supporting the actual implementation of these plans in phase 2.

228 Support the roll-out and application of sector-specific climate change indicators in district planning processes (indicators recently published on the Climate Change Department website).

229 Support to develop a practical tool for assessing CCA incremental costs to be piloted in district planning processes. This should include engagement/lobbying with the Ministry of Finance, Planning and Economic Development on possibilities for scaling up and attracting external funding sources.

230 A differentiated approach for involvement/support to DLGs in phase 2, taking into account the significant differences in DLG capacities and resources. A capacity assessment of the DLGs should be conducted in the beginning of phase 2 as a basis for the involvement/support to these institutions.

231 A continuation of the support to Makerere University Centre for Research and Innovation in Climate Change for piloting and upscaling of the knowledge management information system (equipment provided end of phase 1), including how to mitigate capacity deficiencies at district level. The possibility of supporting undergraduate interns from Makerere and other public universities to be stationed at the DLGs should be explored.

Recommendation 3 (Water access): *Support in a second phase of the GCCA project should be extended to full operationalization of the water infrastructure constructed during phase one of the project, in order to ensure that an adequate amount of water is made available to both crops and livestock in the cattle corridor districts throughout the dry season. More specifically, the following should be explored:*

232 Possibilities to supply solar water pumping equipment for those community irrigation systems with extra storage. This would enable the systems to remain functional even when there is no sunshine, including evenings and mornings when irrigation is most beneficial for crops. Sprinkler irrigation should be considered as an alternative irrigation method to drip lines.

- 233 Securing more land around the valley tanks to establish tree woodlots and additional space for cattle holding. More attention should be given to improving hygiene and sanitation within and around the valley tank premises.
- 234 Feasibility of abstraction of water from existing permanent rivers in at least one cattle corridor district as a pilot. Water should be pumped and provided for crops, livestock and human consumption, to supplement the investments made in water availability using valley tanks and an array of other water harvesting technologies.

Recommendation 4 (Resilience of agricultural production): A second project phase should continue to use FFS as the primary implementation approach to improve resilience at community level. The experience with the FFS approach in phase 1 was overwhelmingly positive, although some adjustments are needed as suggested below.

- 235 A proper exit/phasing out strategy should be developed for FFS support. This should include a plan for following-up with FFS communities after completion of the 18-month FFS training and demonstration period. This is particularly important to ensure that not only the strongest and most wealthy farming households within the communities adopt the practices introduced through FFS; households with less resources and capacity must also be sufficiently supported in the transition to implementing new practices.
- 236 In selecting implementing partners, the criteria for selecting new FFS communities should make sure to prevent certain FFS communities from receiving support from multiple development projects (often implemented through the same organization, and often in a way that precludes other communities from receiving any support).
- 237 The list of enterprises selected for the FFS approach should be sufficiently flexible to include additional options such as apiculture, rabbit farming and fish farming as part of an integrated and resilient approach to agricultural improvement.
- 238 Enterprise promotion should support the entire value chain for selected resilient crop and livestock projects, from validation through harvesting, post-harvest handling and storage.
- 239 The establishment and support of FFS networks should be started early in the process to ensure there is adequate time for the networks to develop.

Recommendation 5 (Partnerships): A more effective platform for planning and coordination among project partners should be established, in particular among those working within same communities, sub-counties and districts.

- 240 FAO should facilitate the process of establishing and running this platform at the initial stage, until sustainable structures are in place.
- 241 The coordination platforms should be chaired by the DLGs. The potential for creating synergies and complementarity with the established District Climate Change Task Forces (which are also chaired by the DLGs) should be further explored.
- 242 Particular attention should be given to include project partners that do not have a permanent presence in the districts in the platforms, and provide sufficient incentives for the project partners to prioritize this initiative.

Recommendation 6 (Gender and vulnerability issues): The experience from the first phase of the GCCA project showed that gender and vulnerability issues would need to be handled in a more systematic and coherent manner among FFS implementing partners. The following recommendations are suggested for a second project phase:

- 243 The use of a more inclusive approach when selecting participants for FFS groups, in order to ensure that vulnerable people (especially youth and people with disabilities) are selected to benefit from and through FFS interventions.

- 244 Conduct a more thorough assessment of the socio-economic impacts for mushroom, coffee and bioenergy interventions with a particular view to a pro-poor and vulnerability perspective.
- 245 Activities should be designed and implemented to be directly aligned with the objectives presented under the FAO Policy on Gender Equality.
- 246 A “do no harm” assessment should be carried out before and during implementation to mitigate any potential negative socio-economic effects from increased household workloads, or any other conflicting issues that may arise during implementation, such as child labour.

Annex I. Terms of Reference

Acronyms and abbreviations

DLG	District Local Government
EC	European Commission
EM	Evaluation Manager
ET	Evaluation team
ETL	Evaluation team leader
ETM	Evaluation Team Members
EU	European Union
FAO	Food and Agriculture Organization of the United Nations
GCCA	Global Climate Change Alliance
IP	Implementing Partner
MAAIF	Ministry of Agriculture, Animal Industry and Fisheries
OED	FAO Office of Evaluation
PM	Project Managers
PTF	Project Task Force
SRS	Simple Random Sample
ToC	Theory of Change
ToR	Terms of Reference

Background and Context

Uganda has been severely affected by climate change, which is usually manifested through unpredictable, intense and at times extreme weather events such as droughts, floods and landslides. Climate change is a major challenge to agriculture in the country because of its effects on the basic elements of food production: soil, water and biodiversity.

Considering that the Ugandan economy and the wellbeing of the population are intricately linked to the natural environment, climate change is also linked to rural poverty since effects such as water scarcity are obstacles to livestock, forestry and agriculture. The cattle corridor, dominated by livestock productions, is the most affected region in the country

Parallel to it, Uganda's population has more than doubled over the last 20 years and yet food production has not matched the increasing demand. In this sense, climate change will likely increase food security and malnutrition.

Due to issues such as limited options of livelihoods, lack of support to climate change adaption actions, limited knowledge on climate change adaption options, Uganda's capacity to adapt to the impacts of climate change is low. To cope with this situation, the GCP/UGA/041/EC was launched in June 2012.

The GCP/UGA/041/EC, titled "Global Climate Change Alliance (GCCA) – Uganda: Agriculture Adaptation to Climate Change", is a four and a half-year initiative funded by the European Union and the Irish Government aimed at strengthening the resilience of rural populations, cattle keepers and agricultural production systems in the central part of the cattle corridor and building the capacities of communities, farmers and the Government of Uganda to cope with climate change⁵².

To achieve this goal the project is organized in a Result Chain containing 3 main intended outcomes (**Appendix I**):

- Knowledge and capacities for climate change adaption strengthened.
- Better access of livestock and crops to water through water for production.
- Resilience of agricultural production systems in the cattle corridor improved

This project, which is expected to end in mid-January 2017, performs in both national and sub-national level, but covers mainly the six districts in the central cattle corridor: Nakasongola, Luweero, Nakaseke, Kiboga, Mubende and Sembabule.

The total project budget is EUR 11 million, funded by the European Union (EU) and the Republic of Ireland. From its beginning it has been implemented by the Food and Agriculture Organization of the United Nations (FAO) in collaboration with the Government of the Republic of Uganda and the local governments from the six central cattle corridor districts, and with help from some national and international partners⁵³. A list containing the main achievements, which was developed by the Project Management, is attached to the ToR (**Appendix II**).

52 It is worth to mention that in September 2013 the Royal Kingdom of Belgium and FAO signed a two-year agreement to implement a complementary set of activities in support of the GCCA project framework. This project (GCP/UGA/041/BEL), titled "Agricultural Adaptation to Climate Change in the Central Cattle Corridor, Uganda", was aimed at strengthening the outputs, activities and strategy of the GCCA project for greater impact and sustainability.

53 The Hunger Project Uganda; Sembalule and Nakasongola District farmer's Association (SEDF/ NADIFA); Lutheran World Federation; Caritas Kasanaensis; Community Care for Development (C-Care Uganda); JB International; Makerere University; National Livestock Resources Research Institute (naLIRRI); Mukono Agriculture Research and Development Institute (MUZARDI); Hanns R. Neumann Stiftung Africa (HRNSA)

Evaluation purpose

The purpose of this final evaluation is to provide accountability to the donor and other stakeholders by assessing changes that have occurred as a result of FAO’s intervention both at the micro and macro level, including the positive and negative unintended effects. Equally, this final evaluation will understand and draw lessons from the implementation processes that could inform future decisions by the EC, FAO and other partners on the formulation of subsequent phases of the GCCA Uganda or similar projects of similar nature.

Box 1 highlights the purposes established and the intended users according to the purposes.

Box 1. Main purposes and intended users of the evaluation		
Purpose		Intended user
Accountability: to respond to the information needs and interests of policy makers and other actors with decision-making.	Inform decision making	Donors FAO Management Governments
	Provide Accountability	
Improvement: Program improvement and organizational development provides valuable information for managers or others responsible for the regular program operations.	Improve program	Project Management and PTF
Enlightenment: In-depth understanding and contextualized the program and its practices normally caters to the information needs and interests of program staff and sometimes participants.	Contribute to knowledge	FAO staff and futur developers and implementers

Evaluation scope

The final evaluation will assess the entire implementation period of the project, from June 2012 to date. It will cover all the key activities undertaken within the framework of the project with a particular focus on the outcomes. This evaluation will cover the activities implemented and planned at national, subnational and community levels, though special attention will be given to the six districts in the central cattle corridor. A Theory of Change of the project is expected to be developed by the Evaluation Team (ET) and validated with the Implementing Partners (IPs) during the evaluation process to identify causal relationships between inputs, outputs and outcomes.

The final evaluation may find some overlaps between the GCP/UGA/041/EC and the GCP/UGA/041/BEL. It will be dully highlighted in the evaluation report.

Evaluation objective and key questions

In keeping with the evaluation purpose, the two main evaluation objectives are:

- Assess the project’s progress, achievements and contributions towards the goal of “strengthen the resilience of rural population and agricultural production systems in the central part of the cattle corridor and build the capacity of communities, commercial farmers and the Government of Uganda to cope with climate change”
- Identify opportunities and challenges for subsequent phases or similar projects under the GCCA programme or within the cattle corridor region.

Evaluation questions

Main evaluation questions were developed to address the evaluation objectives. The questions will be presented in an Evaluation Matrix in line with, though not limited to, those identified in the Result Chain.

- 1 What are the results from the GCCA Uganda project interventions?
 - Has the project achieved its intended outcomes and outputs?
 - Is the project likely to contribute to achievement of the overall project objective?
 - Did the project produce any unintended result either positive or negative?
 - What have been the contributing factors for the results achieved and what can be particularly attributed to FAO?
 - To what extent has the GCP/UGA/041/BEL project contributed to the GCP/UGA/041/EC results? Are there any overlaps and/or synergies between the two projects?
- 2 To what extent has the project built partnerships? Were the partners involved in the project design and implementation?
- 3 To what extent has the project design and implementation considered, reached and supported gender mainstreaming and the most vulnerable groups?
- 4 To what extent is the project creating ownership among stakeholders, government and beneficiaries?
- 5 What are the lessons learned for future design of similar projects/a new project phase?

Methodology

Overview

The whole evaluation should adhere to the UNEG Norms & Standards⁵⁴ and be in line with OED Manual and methodological guidelines and practices. The evaluation will adopt a consultative and transparent approach with all relevant stakeholders throughout the evaluation process.

The overall assessment, including the methodological approach, must be aimed at addressing the main evaluation questions. Sub-questions to support answering the main evaluation questions will be further defined and presented, in tandem with the detailed methodology, in the evaluation matrix. Under each evaluation question and sub-question, triangulation of evidence and information gathered will underpin its validation and analysis will support conclusions and recommendations.

Regarding the methodology, this evaluation will use a mix of quantitative and qualitative methods. The definition of the methods also benefit from the M&E Framework, which was launched in April 2013, and the variety of players involved in the project design and implementation.

The main evaluation tools and methods proposed to answer the questions may include, whenever possible:

- desk-review of existing project documents and reports, including the baseline, the progress reports, and the mid-term review;
- field visits to the central cattle corridor`s districts including, whenever possible, household visits⁵⁵;
- semi-structured in-person interviews with project managers, key informants, donors and other main stakeholders, supported by check lists and/or interview protocols to be developed at the investigatory phase;
- focus group discussions with beneficiaries, which will preferably be divided by type of intervention and, whenever relevant to assess gender mainstreaming, by gender, within the six districts⁵⁶;
- online surveys to be distributed to those who received trainings to cope with climate change⁵⁷.

54 <http://www.uneval.org/document/detail/21>

55 The country office will be responsible for providing the list of households. If household visits are possible, purposeful sampling strategies will be used to select the families.

56 The country office will be responsible for providing the list of beneficiaries per gender, region and type of intervention.

57 The country office will be responsible for providing the list of participants per type of training.

Approach

To begin with, the ET will review relevant background documentation made available by OED and the PM, including, but not limited to: strategic frameworks and background documents developed by FAO and other development partners, and documents directly related to the project. At this stage, the ET with the support of the PM is expected to map all the stakeholders involved in the design and implementation of the project.

Also in this phase, the Evaluation Manager (EM) and the Team Leader (TL), in consultation with the ET, will develop the evaluation matrix and the evaluation tools (i.e. protocol for interviews; questionnaires). This stage is essential to (i) define the evaluation question and sub-questions; (ii) set the most powerful methods and tools to answer those questions; and (iii) identify the most appropriate sources from where the information is supposed to be collected. The evaluation matrix and the tools will be sent to the evaluation counterparts in Uganda for comments.

Once the desk review and the evaluation matrix are finalized, the ET, under the supervision of the TL, and in consultation with the project managers in Uganda, will prepare the first draft of the project's ToC.

Fieldwork will be the next phase in the evaluation process, and, if the timeframe permits, it will be conducted in the six project districts between 5 and 20 December 2016. The first step will be the realization of a one-day workshop in Kampala to finish and validate the ToC in partnership with the main implementing partners.

Still in Kampala, the ET will conduct semi-structured interviews with key stakeholders who have participated either in the design or in the implementation of the project^{58,59}. In sequence, the ET will travel to the six districts to conduct field missions. In each district, the ET will be split into two different teams to cover the desired sample size of DLGs, IPs and beneficiaries.

The ET will conduct semi-structured interviews with DLGs and IPs⁶⁰. Through these interviews, it is expected to obtain information that will contribute to answering the evaluation questions related to all three outcome areas.

In addition, in order to assess the project results and effects among the beneficiaries, focus group discussions will be conducted in each district. Ideally, it is recommended to have two groups per type of intervention⁶¹, however, if not possible, at least one focus group discussion per type of intervention. Particular focus groups formed only by women or youth would be an asset to assess the effects of the project on gender and vulnerable groups mainstreaming.

Due to time constraints, purposeful sample strategies such as quota sampling will be used to select the districts in which the focus groups discussions will assess the interventions related to the outcome 2 and in which districts it will assess the interventions related to the outcome 3⁶². In order to avoid biases, purposeful sampling strategies will also be adopted to select participants⁶³. Through this method, the ET is expected to collect data related to outcomes 2 and 3.

58 Including: Climate Change Department, Water for Production Department, MAAIF, Makerere University, EU, The Embassy of the Kingdom of Belgium, NaLIRRI and MUZARDI.

59 In order to avoid convenience sampling, the ET will select the interviewees using purposeful sampling strategies from a list to be provided by the Country Office.

60 In order to avoid convenience sampling, the ET will select the interviewees using purposeful sampling strategies from a list to be provided by the Country Office.

61 Types of intervention to be assessed by focus groups discussions: large-scale valley tanks (community level); medium-scale irrigation systems (group level); Farm Field Schools; farmers groups for coffee production; bioenergy plantations; and watershed rehabilitation.

62 There are regional and socioeconomic similarities among all the districts in the central cattle corridor. In this sense, by using quota sampling strategy, three districts can be assessed on the water component and other three districts can be assessed on the resilience component. Due to regional connections, the six districts can be divided into two groups. The first one, composed by Nakasongola, Nakaseke and Luwero, present a specific interventions on farmer groups for coffee production, while the second one, composed by Kiboga, Mubende and Sembabule, do not. Thus, by using quota sampling, two districts from the first group and one district from the second group can be assessed on the resilience component; at the same time, two districts from the second group and one district from the first one can be assessed on the water component.

63 i.e. matched comparison; positive deviance comparisons; quota sampling.

If time and logistic arrangements permit, the ET will conduct household visits in the districts in which the water component will be assessed to brief interview some beneficiaries from small-scale water systems. Generalized hypothesis testing will not be possible due to resources and time constraints. Nevertheless, household visits can be conducted under purposeful sampling. In this case, specific strategies would be used to select the participants⁶⁴. Through this method, the ET is expected to collect data related mainly to outcome 2.

In order to cover the capacity development component comprised in outcome 1, an online survey will be implemented to collect information from the population who benefitted from the campaigns and/or training courses. The online survey may allow for a quantitative assessment of the responses received, depending of the response rate.

For the online survey, a brief and concise⁶⁵ questionnaire will be developed using an online platform (i.e. Survey Monkey), and distributed electronically to the beneficiaries (ideally the whole group of beneficiaries) to assess their learning from the training and how they have been able to apply the new knowledge in their daily work. A few exploratory interviews may be conducted to ensure a clear understand of the specific aim and coverage of the capacity development activities. The ET with the support from the PM will follow up with the beneficiaries to encourage their response to the survey. The data obtained through this method will be triangulated with the data obtained from the semi-structured interviews and from the desk review to answer the questions related to outcome 1⁶⁶.

For the data systematization, the ET will utilize Excel spreadsheets and, if necessary, Atlas.TI. The Sustainable Livelihoods Framework⁶⁷ and the Strengths, Weaknesses, Opportunities and Threats (SWOT) framework⁶⁸ can be used for assessment of project results.

Roles and responsibilities

This section describes the different roles that key stakeholders play in the design and implementation of the evaluation.

The Office of Evaluation (OED), in particular the Evaluation Manager (EM), develop the first draft ToR with inputs from the PM in Uganda and the Evaluation Team Leader (ETL). EM is also responsible for the finalization of the ToR and of the identification of the evaluation team members⁶⁹. EM and ETL shall brief the evaluation team on the evaluation methodology and process and will review the final draft report for Quality Assurance purposes in terms of presentation, compliance with the ToR and timely delivery, quality, clarity and soundness of evidence provided and of the analysis supporting conclusions and recommendations in the evaluation report.

The Project Managers (PM) are responsible for initiating the evaluation process, providing inputs to the first version of the Terms of Reference⁷⁰, especially the description of the background and context chapter, and supporting the evaluation team during its work, especially in the organization of the field mission. It is required to participate in meetings with the evaluation team, make available information and documentation as necessary, and comment on the report. The Budget Holder (BH) is also responsible for leading and coordinating the preparation of the FAO Management Response and the Follow-up Report to the evaluation, fully supported in this task by the other members of the Country Office who are involved in the GCCA project. OED guidelines for the Management Response and the Follow-up Report provide necessary details on this process.

64 i.e. intensity sampling; typical case sampling.

65 The questionnaire will be brief in order to maximize the response rate.

66 The semi-structured interviews with key stakeholders will assess to what extent the capacity development activities have influenced relevant changes within the organizations.

67 The Sustainable Livelihoods Framework identifies five different capitals (human, social, natural, financial, and physical), each including different assets. It helps in improving understanding of livelihoods, in particular of the poor. For more information, among others: http://www.livelihoods.org/info/guidance_sheets_pdfs/section2.pdf

68 SWOT is a widely used strategic planning tool, useful also in the assessment of development interventions, to canvass their strengths and weaknesses, as well as future perspectives. It is particularly used in focus groups, but it can be adapted to individual interviews as well.

69 The ET will be comprised by one international ETL and two national/regional ETM. The EM will also perform as ETM.

70 PM may disseminate the ToR among key stakeholders to get comments on the content.

The Evaluation Team (ET) is responsible for further developing and applying the evaluation methodology, for conducting the evaluation, and for producing the evaluation report. All team members, including the Evaluation Team Leader (ETL), will participate in briefing and debriefing meetings, discussions, field visits, and will contribute to the evaluation with written inputs for the final draft and final report. The evaluation team will agree on the outline of the report early in the evaluation process, based on the template provided in due time by OED. The ET will also be free to expand the scope, criteria, questions and issues listed above, as well as develop its own evaluation tools and framework, within the time and resources available and based on discussions with the EM and consultation with the PM. The ET is fully responsible for its report which may not reflect the views of the Secretariat or of FAO. An evaluation report is not subject to technical clearance by FAO although OED is responsible for Quality Assurance of all evaluation reports.

The Evaluation Team Leader (ETL) guides and coordinates the ET members in their specific work, discusses their findings, conclusions and recommendations and prepares the final draft and the final report, consolidating the inputs from the team members with his/her own.

With a view to launching a participatory process, the ET will discuss in detail with the key stakeholders of the project and will take into account their perspectives and opinions. Key stakeholders will include: PTF members, Climate Change Department and WfPD representatives, MAAIF representatives, EU representatives, DLGs, IPs, academia, and others to be identified.

Evaluation team composition and profile

The evaluation will be undertaken by an external international consultant as ETL who will work in collaboration with the OED EM and other two regional/national consultants as ETM.

Key skill set for the ET include: experience in the evaluation of complex projects, analytical skills and expertise in data collection. The team composition will comprise a combination of knowledge on capacity development, agriculture, livestock, water management, resilience and gender. ETL and ETM will have had no previous direct involvement in the formulation, implementation or backstopping of the project.

Evaluation products (deliverables)

This section describes the key evaluation products the ET will be accountable for producing. At the minimum, these products will include:

- Evaluation matrix.
- Draft evaluation report.
- Final evaluation report.

The evaluation matrix will contain the evaluation questions and sub-questions, introduce in details the methodological approach, and present the evaluation tools.

The evaluation report will illustrate the evidence found that responds to the evaluation questions outlined in the ToR and defined in the evaluation matrix, and will include an executive summary. Supporting data and analysis should be annexed to the report when considered important to complement it.

The recommendations will be addressed to the different stakeholders. They will be evidence-based, relevant, focused, clearly formulated and actionable.

The evaluation team will agree on the outline of the report early in the evaluation process, based on the template provided by OED. The report will be prepared in English, with numbered paragraphs, following OED template for report writing. Translations in other languages of the Organization, if required, will be FAO's responsibility.

The team leader bears responsibility for submitting the final draft report to FAO within five weeks from the conclusion of the mission phase. At this stage, the ET plans to organize a workshop in Kampala to present the results to the Country Office and key stakeholders. Then, they will submit to the ET their comments and suggestions to be included, as appropriate, in the final draft within maximum two weeks. Then the report will pass through a validation phase aiming at assessing whether recommendations are actionable and realistic.

Annexes to the evaluation report will include, though not limited to, the following as relevant:

- Terms of reference for the evaluation;
- Evaluation matrix;
- List of documents reviewed;
- List of institutions and stakeholders interviewed by the evaluation team;
- List of participants of the focus group discussions;
- Evaluation tools including the analysis carried out.

Evaluation timeframe

The evaluation timeframe has been planned according to purpose, objectives and methodology outlined above ensuring timely inputs to EU, according to its funding cycle.

The evaluation exercise will be carried out beginning with a desk review during November 2016. In the same phase, the ET will have weekly Skype meetings to define the evaluation matrix and prepare for the fieldwork. The investigation phase will be conducted from November 2016 to December 2016. At the end of the field mission, a debriefing will be held in Kampala with the Country Office to share the preliminary findings and identify any residual actions for completion of the draft report, which shall be shared for validation and comments in January 2017.

Table 1. Tentative Timetable of the Evaluation

Task	Dates	Responsibility
ToR finalization	October – November 2016	OED and PTF
Team identification and recruitment	October – November 2016	OED
Reading background documentation	November 2016	ET
Evaluation matrix	November 2016	ET
Field mission to Uganda	December 2016	ET and PTF
Mission debriefing on preliminary findings	December 2016	ET
Second round of mission in Uganda (if necessary)	January 2017	ETM
Analysis and drafting	January 2017	ET
Draft evaluation report for circulation	January 2017	ET/EM
Workshop to present the results	February 2017	EM/ETL
Comments on the draft evaluation report	February 2017	PTF and Stakeholders
Final evaluation report	March 2017	ETL and EM

Appendix I – Result Chain

Project results	Impacts	Overall Objective: Livelihoods and food security of the rural populations in Uganda sustainably improved		
		Purpose: Resilience of rural populations and agricultural production systems in the central part of the cattle corridor strengthened through improved capacities of communities, commercial farmers and the Government of Uganda to cope with climate change		
	Outcomes	Result 1 – Knowledge and capacities for climate-change adaptation strengthened	Result 2 – Improved access of livestock and crops to water through water for production investments	Result 3 – Resilience of agricultural production systems in the cattle corridor improved
	Outputs	Output 1.1 – Institutional capacity of CCU and other national institutions built Output 1.2 – Climate change awareness raised and training done for key national and district institutions	Output 2.1 – Investment in water infrastructure (15 Valley tanks/ dams constructed/ rehabilitated and operational) Output 2.2 – Participatory water management systems established	Output 3.1 – Community based adaptation practices, technologies and planting materials promoted through FFS Output 3.2 – Bio-energy plantation and improved charcoal production technologies promoted Output 3.3 – Climate change adaptation practices for coffee production promoted
Project activities	Inputs	Activity 1.1.1 Capacity Development Activity 1.2.1 Increasing climate change awareness, training and education of key national and district institutions Activity 1.2.2 Building resilience by improving climate change knowledge base	Activity 2.1.1 Investment in Valley tanks and Valley dams (Hardware) Activity 2.2.1 Investment in software - Building capacity for participatory management of water systems Activity 2.2.2 Procure Technical Assistance to WfP department (Socio-economic aspects of water management)	Activity 3.1.1 Promoting community-based adaptation using the farmer field schools Activity 3.2.1 Promoting bio-energy plantations and improved charcoal production technologies through FFS Activity 3.3.1 Promoting climate adaptation practices for coffee production

Appendix II – Summary of Achievements

Result	Objectively verifiable indicators and targets	Progress against indicators
Overall Objective: Livelihoods and food security of the rural populations in Uganda sustainably improved	Value of livelihood capital assets increased by 5%	To be assessed through Terminal Results Assessment
	Food access by rural populations increased by 5%	To be assessed through Terminal Results Assessment
	Food availability for rural populations increased by 5%	To be assessed through Terminal Results Assessment
Purpose: Resilience of rural populations and agricultural production systems in the central part of the cattle corridor strengthened through improved capacities of communities, commercial farmers and the Government of Uganda to cope with climate change	Proportion of households practicing sustainable climate change adaptive strategies increased by 20%	To be assessed through Terminal Results Assessment
	Number of “insurance” coping strategy options available to households increased by 20%	To be assessed through Terminal Results Assessment
	Climate change adaptive strategies available to rural populations made sustainable	To be assessed through Terminal Results Assessment
Result 1 – Knowledge and capacities for climate-change adaptation strengthened	Proportion of stakeholders (at government, agency and community levels) who are knowledgeable on climate-change adaptation increased by 10%	To be assessed through Terminal Results Assessment
	Proportion of stakeholders (at government, agency and community levels) applying climate-change adaptation practices increased by 20%	To be assessed through Terminal Results Assessment
Result 2 – Improved access of livestock and crops to water through water for production investments	Number of livestock and/or livestock owners that have sustainable access to sufficient water throughout the dry period increased by 20%	To be assessed through Terminal Results Assessment
	Arable land area with small-scale irrigation potential increased by 20%	To be assessed through Terminal Results Assessment
Result 3 – Resilience of agricultural production systems in the cattle corridor improved	Adaptive capacity of agricultural production systems to climate hazards raised to sustainable levels for at least 10 percent of the target communities	To be assessed through Terminal Results Assessment
	Regenerative capacity of natural (biomass and water) resources accessed by at least 10 percent of the target households in the cattle corridor restored to ecologically sustainable levels	To be assessed through Terminal Results Assessment
Output 1.1 – Institutional capacity of CCU and other national institutions built (EC)	CCU and related institutions fully functional	National Resource Center for Climate change constructed, equipped and fully functional

Result	Objectively verifiable indicators and targets	Progress against indicators
Output 1.2 – Climate change awareness raised and training done for key national and district institutions (BEL)	At least one national agency in MWE and district agencies in 6 districts have policy strategies and plans adapted to climate change	Mainstreamed climate change issues into the second National Development Plan (NDPII) Supported the development and submission of Uganda's Intended Nationally Determined Contribution (INDC) to UNFCCC Supported the production and dissemination of National Climate Change Policy (NCCP) with more than 1,000 copies printed Climate change development plans developed in six project target districts of Kiboga, Luweero, Mubende, Nakaseke, Nakasongola and Sembabule
Output 1: Institutional capacity of District local government and NGOs strengthened to support community-based adaptations (BEL)	Level of qualitative improvement in the functionality of CCU and related institutions	A capacity building plan developed for CCU . Five staff supported for Masters' degree training and two staff supported for short courses to improve functionality of staff
	Reference material (report, data and policy recommendations) on economics/capitalization of environmental conservation and climate change adaptation available	
Output 2.1 – Investment in water infrastructure (EC)	15 Valley tanks/ dams constructed/ rehabilitated and fully operational	Contracts awarded to companies for construction of the 15 valley tanks. Work in progress with average completion of 90% Five sites were selected for rehabilitation in the districts of Kiboga, Nakasongola, Nakaseke, Sembabule and Luweero. Bids for rehabilitation of 5 valley tanks opened in second week of October. Work expected to start in November
Output 2.2 –Participatory water management systems established (EC)	Participatory water management systems for at least 70% of public water sources fully functional	Water user committees established for the 15 valley tanks Training manuals and tools designed and trainings conducted for district local governments, water user committees and beneficiary communities.
Output 2.1 - Small-scale water harvesting and irrigation systems established (BEL)	Number of functional small – scale irrigation system established	Four community based small scale irrigation systems established and fully functional in Sembabule, Mubende and Kiboga Districts
Output 2.2 - Participatory water management systems established and functioning (BEL)	Number of water sources for productive purposes with functional participatory water management systems	Participatory water management systems established for four community based irrigation systems and 1 solar powered bore hole

Result	Objectively verifiable indicators and targets	Progress against indicators
Output 3.1 – Community based adaptation practices, technologies and planting materials promoted through FFS (EC)	Number of farmers using environmentally sustainable production and income generation practices increased by 20%	756 FFS established and functional with 420 FFS for coffee farmers. About 17,000 member are actively participating in environmentally sustainable income generating practices Increase in percentage of farmers practicing climate change adaptation and mitigation measured from 30.2% to 69.8%
	Availability of climate shock-tolerant vegetative and non-vegetative crop planting materials increased by 20%	More than 1500 acres of disease and drought tolerant crops and pasture varieties established for multiplication and distribution of clean planting materials. About 22,000 farmers have benefited
Output 3.2 - Sustainable livelihood strategies promoted among 168 Farmer field schools (BEL)	Proportion of farmers/herders using climate-resilient/adaptive skills and technologies (including irrigation);	168 FFS established and functional with about 5,000 farming households actively participating and using climate resilient skills and technologies.
	Level of engagement in alternative livelihood options/diversification by households	Five alternative livelihood diversification enterprises (mushroom production, piggery, poultry, passion fruits and irrigated high value vegetables) introduced with about 90% of members in FFS engaged in at least one enterprise
Output 3.3 – Bio-energy plantation and improved charcoal production technologies promoted (EC)	Proportion of communities/ households adopting sustainable bio-energy/charcoal production practices increased by 20%	More than 1,270 acres of bio-energy plantations and woodlots established
Output 3.4 – Climate change adaptation practices for coffee production promoted (EC)	Proportion of communities/ households adopting sustainable coffee production practices increased by 20%	Climate change adaptation practices disseminated to 12,000 coffee farmers. Average increase of 50% in coffee production reported by adopting households
Output 3.5 - Six (6) micro-watershed ecosystem restored and rehabilitated (BEL)	Number and efficacy of conservation structures and practices within the 6 watersheds;	3,500 half-moons, 4,000 eyebrow basins, 12.6 km of terraces and 2000 Zai pits constructed, 34,000 trees planted, and 200 acres drought tolerant forages planted. More than 1,400 farmers are implemented restoration practices reporting up to 400% increase in yield of some crop and pasture varieties.
	Number/size of ecosystem/ resources stabilized/restored to sustainable levels	More than 800 acres of degraded rangelands areas rehabilitated

Annex II. Evaluation Matrix

Evaluation Matrix			
Evaluation Questions and Sub-questions	Judgement criteria	Data collection methods	Source of verification
1. What are the results from the GCCA Uganda project interventions?			
1.1. Has the project achieved its intended outcomes and outputs?	<ul style="list-style-type: none"> • The knowledge and the capacities at National and district level) for climate-change adaptation were strengthened. • The institutional capacity of CCU and other national institutions were built. • Climate change awareness was raised and training were done for key national and district institutions. • Policy outcomes and planning for climate change adaptations at national and LG institutional levels • Investment in water infrastructure was made (15 valley tanks operating). • The access of livestock and crop farmers to water improved through water for production established schemes • Participatory water management systems were established and operational (irrigation, harvesting & research structures) operational • Resilience of agricultural production systems (diversification and improved income) in the cattle corridor was improved. • Community based adaptation practices, technologies and planting materials were promoted through FFS • Bio-energy plantation and charcoal production technologies were promoted. • Climate change adaptation practices for coffee production were promoted. • Awareness created and networks strengthened 	<ul style="list-style-type: none"> • Desk review • Semi-structured interviews • Focus groups • Household visits • Online survey • Field observation 	<ul style="list-style-type: none"> • Documents produced by the project • Programme management • Implementing partners • DLGs • Donor • Beneficiaries • Other key stakeholders • Community leaders • Institutional policies and documents

Evaluation Matrix			
Evaluation Questions and Sub-questions	Judgement criteria	Data collection methods	Source of verification
1.2. To what extent is the project likely to contribute to achievement of the overall project objective?	<ul style="list-style-type: none"> • Resilience of rural populations and agricultural production systems in the central part of the cattle corridor is likely to be strengthened through improved capacities of communities, commercial farmers and the Government of Uganda to cope with climate change. • Livelihoods and food security of the rural populations in Uganda are likely to be sustainably improved. • Diversified agriculture enterprises leading to improved food production from crops and livestock • Nutrition (nutritious quality and daily quantity) is likely to be improved. • diversified income sources and thus increased Income at HH. • Capacities (absorptive, adaptive and transformative capacity) for planning and integration of resilient agriculture production policies and systems to reduce climate risks 	<ul style="list-style-type: none"> • Desk review • Semi-structured interviews • Focus groups • Household visits 	<ul style="list-style-type: none"> • Documents produced by the project • Programme management • Implementing partners • DLGs • Donor • Beneficiaries • Other key stakeholders
1.3. Did the project produce any unintended results, either positive or negative?	<ul style="list-style-type: none"> • Evidence that unintended results were achieved as consequence of the project interventions. 	<ul style="list-style-type: none"> • Desk review • Semi-structured interviews • Focus groups • Household visits • Field observation 	<ul style="list-style-type: none"> • Documents produced by the project • Programme management • Implementing partners • DLGs • Donor • Beneficiaries • Other key stakeholders
1.4. What have been the contributing factors for the results achieved and what can be particularly attributed to FAO?	<ul style="list-style-type: none"> • Externalities that contributed to achieving the results were identified. • Assessment of results/ factors that can be attributed to the project interventions. • Lessons and best practices 	<ul style="list-style-type: none"> • Desk review • Semi-structured interviews • Focus groups • Household visits 	<ul style="list-style-type: none"> • Documents produced by the project • Programme management • Implementing partners • DLGs • Donor • Beneficiaries • Other key stakeholders

Evaluation Matrix			
Evaluation Questions and Sub-questions	Judgement criteria	Data collection methods	Source of verification
1.5. To what extent has the GCP/UGA/041/BEL project contributed to the GCP/UGA/041/EC results? Are there any overlaps and/or synergies between the two projects?	<ul style="list-style-type: none"> • Contribution of the GCP/UGA/041/BEL to the achieved results. • Comparative analysis of resource financing source and utility 	<ul style="list-style-type: none"> • Desk review • Semi-structured interviews 	<ul style="list-style-type: none"> • Documents produced by the project • Programme management • Implementing partners • DLGs • Donor • Other key stakeholders
2. To what extent has the project built partnerships?			
2.1 What has been the mechanisms used by FAO to engage in partnerships?	<ul style="list-style-type: none"> • Mapped and identified methods of co-operation between FAO and stakeholders (National and local government institutions, research institutions, implementing partners, Farmers, private sector, CSOs,), . • FAO responsiveness to any challenges 	<ul style="list-style-type: none"> • Desk review • Semi-structured interviews 	<ul style="list-style-type: none"> • Documents produced by the project • Programme management • Implementing partners • DLGs • Donor • Other key stakeholders
2.2 To what extent have the partnerships provided complementarity and synergy to the project interventions?	<ul style="list-style-type: none"> • Evidence of results/ contributory factors derived from effective relationships between authorities, institutions and stakeholders at different levels • Extent of and benefit (if any) of strategic selection in partnership 	<ul style="list-style-type: none"> • Desk review • Semi-structured interviews • 	<ul style="list-style-type: none"> • Documents produced by the project • Programme management • Implementing partners • DLGs • Donor • Other key stakeholders
1.3 To what extent have partners been involved in the project design and implementation?	<ul style="list-style-type: none"> • Participation of government, private sector, civil society, etc. in the project design and implementation including monitoring 	<ul style="list-style-type: none"> • Desk review • Semi-structured interviews 	<ul style="list-style-type: none"> • Documents produced by the project • Programme management • Implementing partners • DLGs • Donor • Other key stakeholders
3. To what extent has gender mainstreaming and support to the most vulnerable groups been embedded in the project interventions?			
3.1. To what extent has gender mainstreaming and support to the most vulnerable groups been considered during project design and implementation?	<ul style="list-style-type: none"> • Project activities, indicators and targets that included gender and vulnerable groups. • Positive achievements attributable to gender integration 	<ul style="list-style-type: none"> • Desk review • Semi-structured interviews • Focus groups • Household visits • Online survey • Field observation 	<ul style="list-style-type: none"> • Documents produced by the project • Programme management • Implementing partners • DLGs • Donor • Beneficiaries, • Other key stakeholders

Evaluation Matrix			
Evaluation Questions and Sub-questions	Judgement criteria	Data collection methods	Source of verification
3.2. Have there been particular challenges related to addressing these issues	<ul style="list-style-type: none"> Identified challenges related to gender/ vulnerable groups mainstream. 	<ul style="list-style-type: none"> Desk review Semi-structured interviews 	<ul style="list-style-type: none"> Documents produced by the project Programme management Implementing partners DLGs Donor Other key stakeholders especially community leaders and informants
4. To what extent is the project creating ownership among stakeholders, government and beneficiaries?			
4.1 Have ownership considerations systematically been built into the project design and monitored during implementation?	<ul style="list-style-type: none"> Government and stakeholders feel it is their project, relevant to their needs, and being developed and implemented by them. Exit strategy if any 	<ul style="list-style-type: none"> Desk review Semi-structured interviews Focus groups Household visits Online survey Field observation 	<ul style="list-style-type: none"> Documents produced by the project Programme management Implementing partners DLGs Donor Beneficiaries Other key stakeholders
1.2 How robust are the institutional results that have been achieved through the project interventions, and are they likely to continue after project completion?	<ul style="list-style-type: none"> Interest and capacity to continue and even replicate the project activities, outputs and outcomes. Evidence of commitment to sustain activities like research, monitoring, financing projects Extent of Integration of climate resilience activities in government planning cycles and DLG plans 	<ul style="list-style-type: none"> Desk review Semi-structured interviews 	<ul style="list-style-type: none"> Documents produced by the project Programme management Implementing partners DLGs Donor Other key stakeholders
1.3 To what extent has ownership been created at end-beneficiary level?	<ul style="list-style-type: none"> Beneficiaries feel it is their project, relevant to their needs, and being developed and implemented by them (level of inclusiveness) Evidence of commitment to continue activities like seed multiplication, group work, collective saving, 	<ul style="list-style-type: none"> Desk review Semi-structured interviews Focus groups Household visits Online survey 	<ul style="list-style-type: none"> Documents produced by the project Programme management Implementing partners DLGs Donor Beneficiaries Other key stakeholders
5. What are the lessons learned for future design of similar projects/a new project phase?			
	<ul style="list-style-type: none"> Evidence of lessons learnt and best practices, Discussing what worked, what did not work and reasons Integration of future longer –term strategies in the project 	<ul style="list-style-type: none"> Desk review Semi-structured interviews 	<ul style="list-style-type: none"> Documents produced by the project Programme management Implementing partners DLGs Donor

Annex III. List of documents reviewed

- 1 Project Document and its annexes
- 2 Execution Agreement between FAO and the Ministry of Water and Environment
- 3 Inception and Progress Report July 2012 – July 2013
- 4 Baseline Survey Report
- 5 Monitoring and Evaluation Framework
- 6 Annual Progress Report (July 2014 – June 2015)
- 7 Mid-Term Outcome Assessment Report (January 2015)
- 8 Draft Final Project Report GCP/UGA/041/BEL (April 2016)
- 9 Terminal Results Assessment Report
- 10 GCCA Master Work Plan (2012 – 2016)
- 11 CCU Roadmap Strategic Plan
- 12 CCU Strategic Capacity Building Plan Matrix
- 13 Joint Finance Agreement between the Government of Uganda and the Development Partners concerning support to the Joint Water and Environment Sector Support Programme
- 14 Terms of Reference Climate Change Monitoring and Modelling
- 15 Draft Terms of Reference Cost-benefit analysis (CBA) for adaptation prioritization in agriculture, environment and water
- 16 Draft Work Plan Narrative (WfP Infrastructures)
- 17 Water for Production Component – Work Plan for FY 2013/24 (JPF)
- 18 Budget and Work plan for construction of water infrastructures
- 19 Draft Terms of Reference Applied Research study on livestock dynamics
- 20 Lists of FFS facilitators and coordinators trained in the FFS Methodology
- 21 Letter of Agreements between FAO and all the implementing partners
- 22 Combined Monitoring Report for Quarters 2 0 4: April to December 2015
- 23 Revised Annual Work Plans (May 2016)
- 24 Funding Agreement
- 25 Mid Term Evaluation Report (March 2016)
- 26 Approval of no cost extension of project closure by the water and sanitation sub-sector working group
- 27 Measuring the Return on Investment into Agricultural Technologies for Disaster Risk Reduction: banana cultivation + mulching + trenches + organic composting + improved varieties in Uganda
- 28 Measuring the Return on Investment into Agricultural Technologies for Disaster Risk Reduction: coffee cultivation + mulching + trenches + organic composting + shade trees in Uganda
- 29 Measuring the Return on Investment into Agricultural Technologies for Disaster Risk Reduction: chicken raising + chicken housing + improved breeds in Uganda
- 30 Measuring the Return on Investment into Agricultural Technologies for Disaster Risk Reduction: improved maize varieties in Uganda
- 31 Measuring the Return on Investment into Agricultural Technologies for Disaster Risk Reduction: multi-stress tolerant bean varieties cultivation in Uganda
- 32 Measuring the Return on Investment into Agricultural Technologies for Disaster Risk Reduction: mushroom cultivation for livelihood diversification in Uganda
- 33 Measuring the Return on Investment into Agricultural Technologies for Disaster Risk Reduction: cattle raising + zero grazing + improved breeds + drought tolerant fodder in Uganda
- 34 Measuring the Return on Investment into Agricultural Technologies for Disaster Risk Reduction: vegetable growing + rainwater harvesting in Uganda

- 35 Bioenergy project closure December 2016
- 36 FAO GCCA Parts of Report Feb 27th 2017
- 37 GCCA Logframe Project Results Feb 27th 2017
- 38 Terminal Results Assessment Report (March 2017)
- 39 Training workshop on gender and climate change for farmer's field school facilitators: material and reports
- 40 Training on FFS Refresher: material and reports
- 41 Training on Oyster Mushroom: material and reports
- 42 Training on Seed Multiplication: material and reports
- 43 Training on watershed management: material and reports
- 44 Gender Analysis Report for the GCCA Project (September 2014)
- 45 Gender mainstreaming in the GCCA project
- 46 Gender annual work plan July – January 2016
- 47 Integrating Gender into FAO work in Uganda: a Framework for Mainstreaming Gender in Climate Change
- 48 GCCA Uganda: Agriculture Adaptation to Climate Change Project, Final Report, MWE
- 49 Final Report Caritas
- 50 Final Report JB
- 51 Final Report NADIFA
- 52 SPGS Progress Reports
- 53 Supporting Report to EU/GCCA Project Formulation Fiche
- 54 Terms of Reference for Technical Advisor to Climate Change Unit
- 55 Terms of Reference for Technical Assistance Support to the Ministry of Water and Environment
- 56 Letter of Agreement between FAO and the Ministry of Water and Environment
- 57 Letter of Agreement between FAO and Kiboga
- 58 Letter of Agreement between FAO and Luwero
- 59 Letter of Agreement between FAO and Mubende
- 60 Letter of Agreement between FAO and Nakaseke
- 61 Letter of Agreement between FAO and Nakasongola
- 62 Letter of Agreement between FAO and Seembabule
- 63 Letter of Agreement between FAO and Kasanaensis, as well as progress reports presented by the partner
- 64 Letter of Agreement between FAO and C-CARE
- 65 Letter of Agreement between FAO and LWF
- 66 Letter of Agreement between FAO and NADIFA
- 67 Letter of Agreement between FAO and SEDIFA
- 68 Letter of Agreement between FAO and Caritas, as well as progress reports presented by the partner
- 69 Letter of Agreement between FAO and NaLIRRI
- 70 Letter of Agreement between FAO and Muzardi
- 71 Letter of Agreement between FAO and Hanns R. Neumann Stiftung, as well as progress reports presented by the partner
- 72 Letter of Agreement between FAO and JB
- 73 Communication Plan for GCCA Project
- 74 Country Report on Capacity Building for Young Entrepreneurs in Uganda (September 2016)
- 75 GCCA Valley Tank Land Status
- 76 Water User Committee Members for the 6 Project Districts

Annex IV. List of people consulted

Interviews

FAO Uganda and project management

- 1 Mr. Alhaji Jallow, FAOR
- 2 Massimo Castiello, Senior Project Coordinator
- 3 Kennedy Ignokwe, Project Manager
- 4 Benard Onzima, M&E Specialist
- 5 Anisah Osman, Operational Support Officer
- 6 Stella Tereka, Gender Focal Point
- 7 Emmanuel Zziwa, Field Coordinator
- 8 Winifred Nalyongo, FFS Expert
- 9 Paddy Namurebire, GIS M&E
- 10 Edward Okori, National Livestock Expert
- 11 Joseph Oneka, National Agronomist
- 12 Annabella Najjemba, FFS Assistant
- 13 Peter Opio, Land and Water Expert
- 14 Paul Emuria, Program Officer, Capacity Building and Documentation /Head of Field Office Mubende
- 15 Andrew Atingi, Head of Field Office Nakasongola
- 16 Agatha Ayebazibwe, Communication Officer
- 17 Edward Ssegirinya, National Driver
- 18 Patrick Okello, National Driver
- 19 Henry Ahimbisibwe, Field Officer, SPGSS

Partners

- 20 Teo Gateese, DLG Luwero
- 21 Sarah Namubiru, DLG Luwero
- 22 David Ssennynjojo, Field Operations Manager, HRNS
- 23 Jessica Bitwire, Coordinator, JBI
- 24 Marvin Jjingo, FFS Supervisor, Caritas
- 25 Betty Namagala, Technical Supervisor, Caritas
- 26 Jaliah Namubiru, District Production Officer, Luwero
- 27 Edrisa Ssebale, DLG Nakaseke
- 28 Dan Batanda, FFS Supervisor, Caritas
- 29 Sarah Nakamya, DLG Nakasongola
- 30 Andama Charlesa, District Environmental Officer, Nakasongola
- 31 Harriet Ndagire, Field Coordinator, KULIKA
- 32 Magado Ronald, Coordinator, NADIFA
- 33 Chebet Maikut, Director, Climate Change Department
- 34 Mohammed Semambo, Climate Change Department
- 35 Bob Natifu, Climate Change Department
- 36 Richard Cong, Commissioner, Water for Production Department
- 37 Ronald Kasozi, Engineer, Water for Production Department

- 38 Sunday Mutabazi, Commissioner, Ministry of Agriculture, Animal Industry and Fisheries
- 39 Aloys Lorkeers, Head of Section – Sustainable Development, European Union
- 40 Jalia Kobusinge, European Union
- 41 Erwin de Wandel, Head of Development Cooperation, The Embassy of the Kingdom of Belgium
- 42 Sam Jozef Vanuytsey, The Embassy of the Kingdom of Belgium
- 43 Wouter Cools, The Embassy of the Kingdom of Belgium
- 44 Revocatus Twinomuhangi, Makerere University
- 45 Michael Mbogga, Makerere University
- 46 Swidiq Mugerwa, NARO-NaLIRRI
- 47 Stella Kabiri, NARO-MUZARDI
- 48 Bimbona Simon, DLG Ssembabule
- 49 Ssali Angello, DLG Ssembabule
- 50 Godfrey Bitakaramire, Chief Executive Officer, SEDFA
- 51 Paul Onyait, Grants Manager, LWF
- 52 Ndya Bahikaelias, FFS Coordinator, LWF
- 53 Charles Kiberu Nsubuga, DLG Mubende
- 54 Kinene Vincent, DLG Mubende
- 55 Laban Rutareberwa, C-Care
- 56 Manoah Turyahikayo, FFS Coordinator, C-Care
- 57 Makumbi Henry Harrison, DLG Kiboga
- 58 John Atikoro, DLG Kiboga
- 59 Daisy Owomugasho, Executive Director, THPU
- 60 Hellen Abbo, FFS Coordinator, THPU

Focus Group Discussions and household visits

Profile	Total number of participants
DLG and Implementing Partners (<i>field operators in the 6 districts; excluding duplicated participants</i>)	95
Beneficiaries from different types of interventions in the 6 districts (<i>including participants from the FDGs conducted only with women and youth, and excluding duplicated participants</i>)	197

Annex V. Online Survey

GCCA Project

Introduction

The Global Climate Change Alliance (GCCA) Project Uganda is going through an evaluation process to assess its achievements, and identify its challenges and lessons learned.

Throughout the years, a number of activities aimed at strengthening capacities on agriculture adaptation to climate change were implemented by the project.

The aim of this short survey is to help us understand to what extent and how the GCCA Project has helped to improve your knowledge and capacity in relation to agriculture adaptation to climate change and whether this learning is being applied in practice.

It will take only 10 - 15 minutes to fill in the survey.

Your contribution will be extremely important to further improvement - and potential extension - of the project.

Anonymity will be fully guaranteed.

Please fill in the survey questionnaire NO LATER than on WEDNESDAY 18 JANUARY 2017!

Thank you very much for your collaboration!

Personal information

1. Which institution do you represent?
 - a. Implementing Partner - FFS facilitator
 - b. Implementing Partner – administrative/ coordination level
 - c. National government
 - d. District local level
 - e. Parliament
 - f. Other (please specify):

2. Which district do you represent?
 - a. Kiboga
 - b. Luwero
 - c. Mubende
 - d. Nakaseke
 - e. Nakasongola
 - f. Sembabule
 - g. Other (please specify):

Personal assessment

3. Please indicate your own level of knowledge within the following areas BEFORE you received support from the GCCA Project. Please use a scale from 0 (low) to 5 (high).

	0	1	2	3	4	5	N/A
Conceptual knowledge on agriculture adaptation to climate change							
Technical knowledge on agriculture adaptation to climate change							
Knowledge on how to include agriculture adaptation to climate change activities into agriculture planning							
Knowledge on how to mainstream climate change adaptation across different sectors							
Knowledge on gender aspects related to climate change in agriculture							
Other (please specify):							

4. Please indicate your own level of knowledge within the following areas AFTER you received support from the GCCA Project. Please use a scale from 0 (low) to 5 (high).

	0	1	2	3	4	5	N/A
Conceptual knowledge on agriculture adaptation to climate change							
Technical knowledge on agriculture adaptation to climate change							
Knowledge on how to include agriculture adaptation to climate change activities into agriculture planning							
Knowledge on how to mainstream climate change adaptation across different sectors							
Knowledge on gender aspects related to climate change in agriculture							
Other (please specify):							

5. How important has the support from the FAO GCCA Project been for improving your personal knowledge within the above mentioned areas

- a. Very important
- b. Important
- c. Less important
- d. Not important

6. To what extent are you able to apply your improved capacities/ knowledge on agriculture adaptation to climate change in your daily work

- a. High extent
- b. Some extent
- c. Little extent
- d. Not at all

- 7 In which way do you apply your improved knowledge/capacity?
- I use it for design and planning of other agriculture project/programme activities
 - I use it for implementing of other agriculture project/programme activities
 - I use it for better implementing the GCCA project activities
 - I share it in meetings with other institutions
 - I adopt the practices in my interpersonal relations
 - I teach/ talk to my colleagues about the topics
 - I use it to raise more financial resources for the organisation
 - Other (please specify):
-

- 8 Could you please give just one example on how you are applying this knowledge?
-

- 9 If you do not apply, what prevent you in doing so?
- I do not have interest
 - I do not find people interested
 - My institution do not allow me to apply
 - Time
 - Resources
 - I do not feel that I am skilful enough to do so
 - I do not have any incentives from the organisation to do so
 - It is not required by my organisation
 - My organization does not allow me to apply
 - Other (please specify):
-

Institutional assessment

- 10 To what extent do you think that the support from the FAO GCCA Project has contributed to improving the capacities of your institution in the following areas:

	Not at all	Little extent	Some extent	Large extent	N/A
Conceptual knowledge on agriculture adaptation to climate change					
Technical knowledge on agriculture adaptation to climate change					
Knowledge on how to include agriculture adaptation to climate change activities into agriculture planning					
Mainstreaming of climate change adaptation across different sectors					
Gender issues related to climate change in agriculture					
Other (please specify):					

- 11 How important has the support from the FAO GCCA Project been for capacity building of your institution on agriculture adaptation to climate change compared to support received from other development projects?
- Very important
 - Important
 - Less important
 - Not important

General assessment

- 12 To what extent have the following type of FAO GCCA Project support been beneficial to you and your institution in order to improve your knowledge on agriculture adaptation to climate change?

	Not at all	Little extent	Some extent	Large extent	N/A
Training courses provided by the project					
Materials and publications provided by the project					
Workshops organised by the project					
Awareness activities provided by the project					
Working together with technical experts/ consultants (hands-on training)					
Practical experience from observations the field					
Other (please specify):					

- 13 Overall, how satisfied were you with the project interventions aimed at promoting your personal knowledge and skills on agriculture adaptation to climate change?
- Very satisfied
 - Satisfied
 - Dissatisfied
 - Very dissatisfied
- 14 Overall, how satisfied were you with the project interventions aimed at improving the capacities of your institution on agriculture adaptation to climate change?
- Very satisfied
 - Satisfied
 - Dissatisfied
 - Very dissatisfied

Suggestions

- 15 Please leave any other comments, suggestions or recommendations you may have:
-

Annex VI. Interview guides

1. Interview guide – Implementing Partners (FFS)

Evaluation Questions	Check for following type of evidence/examples
1. Results and processes (achieved/ on-track to achieve) from the GCCA interventions based on the (envisaged) outcomes and outputs	<ul style="list-style-type: none"> - What has worked well/less well in terms of FFS (approach, design, implementation, partnerships)? - What are the main changes observed at HH level related to the FAO project support (e.g. issues on food access/security/availability, access to water/inputs/technology, changes in income/production/capital assets, changes in skills/capacities etc.)? -Are the results/changes observed at HH level in line with expectations? If not, please explain. -Any particular constraints/challenges related to obtaining of changes/results at HH level from the FFS interventions (e.g. land issues, resources, group dynamic, markets etc.) - Which capacities have in particular been strengthened within the IP due to support from the FAO project? - Has the FAO project provided any other (indirect) benefit to the IP?
2. Partnerships and cooperation	<ul style="list-style-type: none"> - Have the FAO project led to new Partnerships or improved/different working relationships with governmental institutions, Development Partners, NGOs, research institutions etc.? - Has synergy/coordination/collaboration been developed with other programmes/ projects? Examples!
3. Gender and vulnerable groups	<ul style="list-style-type: none"> - To what extent has gender issues and support to the most vulnerable groups been considered? - Have there been any particular challenges to address these issues?
4. Ownership and Sustainability	<p>FFS HHs: Is it likely that the HHs will be able to sustain their climate change adaptive strategies after project completion? What is the level of up-scaling/uptake/ dissemination in relation to the supported FFS activities?</p> <p>IPs: Is it likely that new partnerships/working relations will remain after project completion? What are the mutual incentives?</p>
5. The importance of context and external factors for achievement of impact from the interventions?	<ul style="list-style-type: none"> - National developments (political, elections, reforms, disasters, etc.) - Other contextual factors of particular importance (e.g. other important development programmes)
6. Lessons and Recommendations	<ul style="list-style-type: none"> - What has been the most important learning from the first phase of the project? - Should anything be done differently in a possible second project phase?

2. Interview guide –Management/staff from central government institutions

Evaluation Questions	Check for following type of evidence/examples
1. Results (achieved/on-track to achieve) from the GCCA interventions based on the (envisaged) outcomes and outputs	<ul style="list-style-type: none"> - What are the most important institutional results/changes resulting from the GCCA support? - Has the GCCA support led to specific changes in the enabling/framework conditions for CC/CCA? - Which institutional areas have in particular been strengthened through support from the GCCA? - Have the capacity development activities led to changes in institutional performance / mentality and in mind-sets - Examples! - Have particular CC data/indicators been developed with support from the GCCA? If yes, how are they used?
2. Partnerships and cooperation	<ul style="list-style-type: none"> - Have Partnerships (e.g. with other governmental institutions, NGOs, other DPs) been established due to the GCCA support? - Has coordination/collaboration within and/or across governmental institutions improved due to the GCCA support (e.g. between central and local government)? – Examples!
3. Gender and vulnerable groups	<ul style="list-style-type: none"> - To what extent has gender mainstreaming and support to the most vulnerable groups been considered during project design and implementation? - Have there been any particular challenges to reflect these issues?
4. Ownership and Sustainability	<ul style="list-style-type: none"> - Is it likely that the institutional results/changes will remain/be further developed after project completion? What are the indications? - Is it likely that the Partnerships will remain after project completion? What are the mutual incentives? - Has any particular up-scaling/uptake/dissemination of GCCA supported interventions taken place? - Any particular changes in budget allocations/political priorities to sustain interventions?
5. The importance of context and external factors for achievement of impact from the interventions?	<ul style="list-style-type: none"> - International developments (e.g. COP's, conventions, financial markets etc.) - National developments (political, elections, reforms, disasters, decentralisation (competence of local versus national) etc.) - Other contextual factors of particular importance (e.g. other important development programmes)
6. Lessons and Recommendations	<ul style="list-style-type: none"> - What has been the most important learning from the first phase of GCCA? - What has worked well/lees well? - Should anything be done differently in a possible second project phase?

3. Interview guide – Management/staff from local government institutions (district, sub-county)

Evaluation Questions	Check for following type of evidence/examples
1. Results (achieved/ on-track to achieve) from the GCCA interventions based on the (envisaged) outcomes and outputs	<ul style="list-style-type: none"> - What are the most important results/changes resulting from the FAO project support? - Which capacities within the institution have in particular been strengthened? - Has the capacity development resulted in any changes in relation to district/sub-county CC/CCA planning and implementation? - Have the capacity development resulted in any other changes in terms of institutional performance / changes in mentality and in mind-sets of staff - Examples! - Have any specific changes been observed at sub-county level as a result of the FAO project?
2. Partnerships and cooperation	<ul style="list-style-type: none"> - Have the FAO project led to new Partnerships or improved/different working relationships with other governmental institutions, Development Partners, NGOs, research institutions etc.? - Has synergy/coordination/collaboration been developed with other programmes/ projects? Examples!
3. Gender and vulnerable groups	<ul style="list-style-type: none"> - To what extent has gender issues and the support to the most vulnerable groups been considered in the CC/CCA planning? - Have there been any particular challenges to address these issues?
4. Ownership and Sustainability	<ul style="list-style-type: none"> - Is it likely that the institutional results/changes will remain after FAO project completion? What are the indications? - Is it likely that the new Partnerships/working relationships will remain after project completion? What are the mutual incentives?
5. The importance of context and external factors for achievement of impact from the interventions?	<ul style="list-style-type: none"> - National developments (political, elections, reforms, disasters, decentralisation (competence of local versus national) etc.) - Other contextual factors of particular importance (e.g. other important development programmes)
6. Lessons and Recommendations	<ul style="list-style-type: none"> - What has been the most important learning from the FAO project? - What has worked well/lees well? - Should anything be done differently in a possible second project phase?

4. Guiding questions for Focus Group Discussions

Topic	Questions
Background on group of FGD participants	What are the <u>characteristics</u> of the Focus Group Participants (beneficiaries of project support (which); non-beneficiaries; male-female; old/youth; etc.)?
Overall info on project support and benefits	<p>When was the project support provided (<u>year</u>)?</p> <p>What type of support received?</p> <p>If production support (livestock or crop) If livestock production, animals, water, training, group management, infrastructure e.g. fence,, capital, markets information etc</p> <p>If crop production support, seeds, equipment, inputs (fertilizers), group formation, capital, markets, information</p> <p><u>Support:</u> What was the most important support received from the project (e.g. equipment, training, production input, support to group formation; building of relationships; access to markets and price information etc.)?</p> <p><u>Benefits:</u> Did the above lead to any benefits in terms of livelihood changes, diversity, in your personal life, family, in your village or community, organization etc.</p> <p>Who have <u>benefitted most</u> from the project support within the district/communities (e.g. men/women/youth; those with most or less land cultivated/number of livestock, particular vulnerable groups etc.)?</p> <p>Have the project <u>benefitted other farm households</u> than those receiving the support? If yes, please explain who else have benefitted and how!</p>
Q1 (Natural Capital – environment)	<p>What have been the most important <u>changes in production compared to the situation before</u> the project support (e.g. changes in production levels and quality, number/type of livestock etc.)? If yes, please explain also the main reason for change!</p> <p>Have there been any important <u>changes in land, environmental/climate conditions</u> compared to the situation before the project support? (e.g. changes in land area under cultivation, soil fertility, water quality/availability, usage of fertilizer, forestry etc.)? If yes, please explain the main reason for change!</p>
Q2 (Human Capital: Food Security, skills and employment)	<p><u>Food Security:</u> Have there been any months, in the past 12 months, in which households did <u>suffer from food shortage</u>? Is this different from the situation before the project support?</p> <p>Has the food availability changed since the project?</p> <p>Are these changes in any way associated with the presence of the project</p> <p><u>Skills:</u> What are the most important skills and knowledge acquired from the project (OBS – check for climate change adoptive strategies!)?</p> <p>How often is training/technical support provided today in relation to the farm production and by whom? Is this different from the situation before the project? If yes, please explain the difference and reason for change!</p>

Q3 (Social Capital: Relationships)	<p>Have <u>farmer/processor groups</u> or networks been established? If yes, when were the groups/networks established and what have been the most important benefits and challenges from participating in these groups? Did the project support establishment and functioning of these groups? If yes, how? Please provide examples!</p> <p>What have been the most important changes in <u>relationships</u> with service providers, suppliers and/or buyers compared to the situation before the project. Did the project support development of these relationships? If yes, how? Please provide examples!</p> <p>Do the farms have <u>access to production inputs</u> when needed? Has this changed since the project? If yes, please provide examples!</p> <p>Do the farms have access to <u>information on markets and prices when needed</u>? Has this changed since the project? If yes, please provide examples!</p> <p>Do the farms have <u>access to key processing services</u> when needed (such as drying, warehousing, storage, etc.)? Has this changed since the project/because of the project? If yes, please provide examples!</p>
Q4 (Physical Capital)	<p>What have been the most important changes/improvements in equipment, housing, buildings, storage facilities, tools and infrastructure compared to the situation before the project? Please distinguish between what was provided by the project and what have been funded afterwards from own funds. (OBS – check for water tanks!)</p> <p>How has these changes contributed to improvements in livelihoods?</p>
Q5 (Financial Capital)	<p>Has income increased compared to the situation before the project? What has been the main reason for change?</p> <p>What is the <u>profit</u> earned from the business activities that were supported by the project <u>mainly used for</u>: a) re-invested into the business; b) saved; c) repayment of loan; d) household expenses (basic needs like housing, clothing, food, medical, schooling etc.); e) other (e.g. luxury goods)?</p> <p>Have the farm households experienced <u>changes in the access to</u>: a) <u>loans</u>; b) <u>credit</u>; c) <u>guarantees</u> (e.g. guaranteed prices and pre-finance from buyers) and/or <u>subsidies</u> compared to the situation before the project? If yes, please explain the most important changes and the reasons for change!</p>
Q6 (Extension services and governmental institutions)	<p>Who is <u>available/contacted for advice</u> on production issues? Has this changed compared to the situation before the project? If yes, please explain the changes and the reasons for change!</p> <p>Has the <u>nature (quality, accessibility, frequency) of extension/advisory services</u> (offered by governmental institutions, NGOs, vets, consultants etc.) changed since the project was implemented? If yes, please explain the most important changes and the reasons for change!</p> <p>Has the <u>interaction with governmental water and agricultural institutions and staff</u> changed since the project was implemented? If yes, please explain the most important changes and the reasons for change!</p>
Q7 Context and External factors	<p>Have there been any other particular important drivers/barriers for <u>increase/decrease in production/income levels</u> and employment? (e.g. support from other donor-funded programmes, government support programmes, weather conditions, development on financial markets, the business environment, the political situation, infrastructure development (e.g. transport and market infrastructure) etc.). Please explain how important each of these drivers/barriers have been.</p>
Q8 (Gender, Women, Vulnerable)	<p>Have there been any <u>particular benefits/disadvantages from the project support for the women and vulnerable people</u> (e.g. organisation, skill sets, age groups like youth, position/responsibility of women, workload etc.)? If yes, please explain.</p> <p>Who in the household <u>receives the money</u> from sales of the product supported by the project (the man or the woman)? Who in the household <u>decides</u> what the income (money) should be used for (the man or the woman)? Is this different from before the project was implemented?</p>
Q9 (Opportunities and Challenges)	<p>What were the main obstacles/challenges for changing livelihood options to cope with climate change <u>before</u> the project support? (e.g. a) Insufficient access to land and production capacity; b) Insufficient access to knowledge, skills and advice ; c) insufficient access to markets, price information, input suppliers and buyers; d) insufficient access to water equipment, tools, buildings, transport, storage facilities etc. ; e) insufficient access to finance (loans, credit, guarantees); f) insufficient organization; g) other).</p> <p>Please explain any changes in the situation now compared to the situation before the project!</p>



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