

GCCA+

THE GLOBAL CLIMATE CHANGE ALLIANCE PLUS INITIATIVE



Funded by
the European Union

Case Study Nr. 13 – Ethiopia



IMPACT AND SUSTAINABILITY STUDY

ETHIOPIA

GLOBAL CLIMATE CHANGE ALLIANCE ETHIOPIA (GCCA-E): BUILDING THE NATIONAL
CAPACITY AND KNOWLEDGE ON CLIMATE CHANGE RESILIENT ACTIONS

CRIS CODE: DCI-ENV/2010/022-456

MARCH 2021

www.gcca.eu

List of Acronyms

AFD : Agence Française pour le Développement
AFOLU: Agriculture, Forestry and Other Land Use
BMZ: German Ministry for Economic Cooperation and Development
BoO: Basket of Options
CC: Climate Change
CNCR-E: Carbon Neutral Climate Resilient (CNCR-Ethiopia) Strategy
CRGE: Climate Resilient Green Economy
CSA: Climate-Sensitive Agriculture
DA: Delegation Agreement
EPA: Environment Protection Authority
ESIF: Ethiopian Strategic Investment Framework
ESPAWM: Exit Strategy and Performance Assessments for Watershed Management
ETB: Ethiopian Birr
EU: European Union
EUD: European Union Delegation
FA: Financing Agreement
FAO: Food and Agriculture Organisation
GCCA: Global Climate Change Alliance
GCCA-E: Global Climate Change Alliance – Ethiopia
GDP: Gross Domestic Product
GHG: Greenhouse Gas
GoE: Government of Ethiopia
GTP: Growth and Transformation Plan
HoC: Head of Cooperation
IFPRI: International Food Policy Research Institute
MoA: Ministry of Agriculture
MoANR: Ministry of Agriculture and Natural Resources
MoFED: Ministry of Finance and Economic Development
MoU: Memorandum of Understanding
M&E: Monitoring & Evaluation
NAO: National Authorising Office
NAP: National Adaptation Plan
NDC: Nationally Determined Contributions
NGO: Non-Governmental Organizations
NSA: Non-State Actors
OO: Overall Objective
PSNP: Productive Safety Net Programme
PSU: Project Support Unit
R: Expected Result
ROM: Result-Oriented Monitoring
SLM: Sustainable Land Management
SLMP: Sustainable Land Management Programme
SO: Specific Objective
SURED: Sustainable Use of Rehabilitated Land for Economic Development
SWC: Soil and Water Conservation
TA: Technical Assistance

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TAPS: Technical and Administrative Provisions

WB: World Bank

WWF: World Wide Fund for Nature

I. Project Details and Outputs Delivered

PROJECT TITLE:

Global Climate Change Alliance – Ethiopia (GCCA-E): Building the national capacity and knowledge on climate change resilient actions¹

CRIS Code: DCI-ENV/2010/022-456

In some documents (e.g. the Delegation Agreement with GIZ) the original title was replaced by “GCCA-E: *Pilot Testing Climate Change Activities within the Sustainable Land Management (SLM) Programme*”, which covers better the project content following the cancellation of Results 1 and 2².

AAP Year : 2010	DURATION: 72 months ³ starting with the signature of the Financing Agreement (FA) ⁴ (the implementation period was later extended by 12 months)	DATE OF COMPLETION: 01/2016 (end of the operational implementation phase)
TOTAL PROJECT COST: 10,000,000 EUR EU : 9,700,000 EUR BMZ (Germany) : 300,000 EUR		GCCA ALLOCATION: 9,700,000 EUR GIZ Delegation Agreement: 8,800,000 EUR ⁵ Audits, M&E, contingencies, visibility and kick-start TA: 900,000 EUR
AID MODALITY : Project approach		MANAGEMENT ARRANGEMENTS : ▪ Indirect centralised management [Financing Agreement between the EU and the GoE (January 2011) ⁶ ; Delegation Agreement between the GoE (NAO) and GIZ (December 2011) – DCI-ENV/2011/281-266; a Memorandum of Understanding (MoU) between the MoFED (NAO), MoA, GIZ and the EUD,

¹ The project provides specific, climate-oriented support to the overall 100 million USD SLM programme that is funded by the World Bank, the German Government and the EU, among others, and implemented by the Ethiopian Ministry of Agriculture (MoA). It provides technical and advisory support, as well as equipment and materials, and it aims at identifying suitable climate smart options for land management and agricultural production through pilot testing in selected micro-watersheds in 34 woredas for eventual replication elsewhere in Ethiopia. The SLM Programme itself was designed to combine the benefits of land tenure security and of sustainable land management in watersheds. The German Government-supported component of the SLM programme, implemented by GIZ (GIZ-SLM), seeks to strengthen the capacities of the national implementing structure of the MoA. It adopts a watershed-based approach to rehabilitate degraded lands and improve farmers' livelihoods. The target groups of the overall programme comprise government institutions at federal and regional levels, as well as rural populations in the micro-watersheds where the pilot activities are carried out.

² Results 1 and 2 focused on capacity building at national level, with the Environment Protection Authority (EPA) as main beneficiary. The two Results were abandoned – and the corresponding funds of 4 million EUR de-committed – in the early stages of implementation due to disagreements between the Government of Ethiopia (GoE) and the intended implementing partner (Agence Française pour le Développement – AFD) when discussing the Delegation Agreement.

³ With an operational implementation phase of 48 months and a closure phase of 24 months.

⁴ FA was signed in January 2011.

⁵ According to the project's final report, only 6,020,135 EUR was implemented (68.4 % of the available budget)

⁶ In October 2013, an Addendum to the FA was signed to formalise the extension of the implementation period (12 months); the de-commission of the 4 million EUR assigned to the cancelled Results 1 and 2; the increase of the budget provided by BMZ with 300,000 EUR; and the cancellation of Results 1 and 2.

concluded in May 2012, defining the cooperation and monitoring modalities.]

- Direct centralised management (Audits, M&E, contingencies, visibility and kick-start TA)

GEOGRAPHICAL COVERAGE:

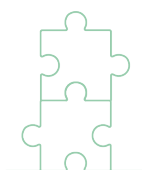
The GCCA-E project supported the piloting of innovative agricultural combinations in 34 selected micro-watersheds (measuring between 500 and 1000 ha) in 34 districts (Woredas) in five Regional States [Amhara (12), Tigray (9), Oromia (10), Benishangul-Gumuz (2) and Gambella (1)]. The 34 districts (Woredas) were all located within the Nile Basin (national priority area) and within the intervention area of the SLM programme, they represented the different agro-ecological zones prevailing in the SLMP intervention area as well as different socio-economic conditions.

MAIN STAKEHOLDERS AND BENEFICIARIES:

- The Ministry of Finance and Economic Development (MoFED) as contracting authority
- The Ministry of Agriculture (MoA) and GIZ as main implementing agencies:
- Beneficiaries: The target groups of the project comprised government institutions at federal, regional and district levels, as well as rural populations in the micro-watersheds where the pilot testing of climate smart and livelihood enhancing agricultural technologies was carried out. The project engaged a total of about 20,460 households, many of whom cultivated degraded and increasingly infertile land.

GCCA PRIORITY AREA(S):

Adaptation



MAIN SECTOR(S):

Overall development and poverty reduction, Agriculture, Energy, Land Management, Natural Resource Management

OVERALL OBJECTIVE:

To contribute towards achieving Ethiopia's Climate Resilient Green Economy (CRGE) strategy through capacity building and sustainable land management. (FA/TAPS)⁷

SPECIFIC OBJECTIVE(S):

To increase the awareness and capacity of targeted Government institutions both at federal and regional levels and of the rural population at large to deal with climate change. (FA/TAPS)

EXPECTED RESULTS:

Result 3: Climate smart activities relevant in the context of the CRGE strategy have successfully been field tested in selected areas of the Sustainable Land Management (SLM) programme of the Ministry of Agriculture, analysed and documented for up-scaling⁸.

⁷ The wording of the initial OO (= to contribute towards the construction of a carbon neutral and climate resilient economy through its corresponding socio-economic development programme (CNCR-E)) is herewith slightly reformulated so as to adjust to the fact that the CNCR-E was replaced by the Climate Resilient Green Economy (CRGE) strategy in the early stages of programme implementation. There are no changes in the Specific Objective.

⁸ Climate smart technologies were pre-selected and tested on basis of their combined potential gains in CC adaptation, mitigation and livelihood enhancement (food security/income). The testing was expected to inform the implementation of the national climate agenda. As final outcome, a document was expected with a description of the several packages/combinations of climate smart actions/technologies that had been tested along with recommendations for their

OUTPUTS DELIVERED:

- Basket of Options (BoO) of climate-sensitive agriculture (CSA) and soil-and-water conservation (SWC) measures developed to provide guidance in identifying, field-testing, analysing and documenting land use based 'climate-smart' practices. Measures were rated by their potential contribution towards adaptation, mitigation and livelihood improvement goals. The rating was based on direct or immediate effects. The BoO also provided guidelines for monitoring and assessing the CSA and SWC measures individually. The BoO was meant to be a living document and a tool to be enhanced and updated over time.
- Project participants and staff of partner organisations in 34 Districts in 5 Regions trained in monitoring and reporting
- 706 local experts, development advisors and officials (19% women) at District level trained in CSA and SWC measures
- 7,105 farmers (20% women) sensitised and trained in CSA and SWC measures
- 24 community groups for Participatory Forest Management established
- 12 farmer field schools with a total amount of 288 members established
- 12 community workers and 8 technicians trained in artificial insemination
- 7 groups of technicians trained in delivery of animal health services
- Regional discussion forum established to spread knowledge on the effects of climate change on agriculture in Ethiopia
- A mechanism for engaging farmers in the piloting of CSA and (SWC) measures developed and tested (including the provision of information and capacity development, upfront payments, supply of inputs and the set-up of a compensation scheme for risk/loss⁹)
- A tool and guidelines for combining the various tested interventions or measures in different situations. The tool includes many more separate interventions/measures than presented in the initial Basket of Options. Building combinations of interventions should overcome trade-offs and thereby strengthen the degree of climate-smartness of interventions.
- 1,065 ha of degraded hillsides closed for rehabilitation of vegetation (pilot interventions on degraded hillsides)
- 124 ha enrichment planting in degraded forest areas (pilot interventions on degraded hillsides)
- 9.5 million tree seedlings raised in 42 nurseries
- 65,500 trenches constructed (pilot interventions on degraded hillsides, SWC measures)
- 547 km of terraces constructed (pilot interventions on degraded hillsides, SWC measures)
- 134,054 micro-basins with a total capacity of 483,000m³ for water collection constructed (pilot interventions on degraded hillsides, SWC measures)
- 720 eyebrow basins constructed (pilot interventions on degraded hillsides, SWC measures)
- 6,632 percolation pits constructed (pilot interventions on degraded hillsides, SWC measures)
- Gullies stabilised in 89 ha (pilot interventions on degraded hillsides, SWC measures)
- 28,516 m³ check dams constructed (pilot interventions on degraded hillsides, SWC measures)
- 609 beehives supplied (pilot interventions on degraded hillsides)
- Conservation agriculture techniques (incl. minimum tillage, mulching and crop rotation) piloted in 174 ha (interventions on farmland)
- 1,023 km of soil bunds installed (interventions on farmland)
- Forage production on 183 km of soil bunds and shrub windbreaks (interventions on farmland)
- 120 ha fertilised with green manure (interventions on farmland)
- 125 ha fertilised through mulching (interventions on farmland)
- 224 ha fertilised with bio-fertilizer (interventions on farmland)
- 28,468 fruit trees planted in agroforestry systems (interventions on farmland)
- Seeds of improved crop varieties supplied (interventions on farmland)

application in different types of situations and land use categories (degraded hillsides, farmland, homesteads, grazing land/pasture, livestock and poultry activities across the landscapes).

⁹ In practice, no compensations have been claimed.

- 36,259 m³ of compost prepared with “Effective Micro-Organisms” (interventions for homestead development, soil improvement)
- 126 shallow wells drilled (interventions for homestead development, water harvesting and storage)
- 93 water pumps provided (interventions for homestead development, water harvesting and storage)
- 52 km of living fences planted (interventions for homestead development, forage production)
- 913 ha of backyards established and put into production (interventions for homestead development, forage production)
- 2,489 fuel efficient stoves supplied (interventions for homestead development, household energy)
- 15 biogas plants installed (interventions for homestead development, household energy)
- 111 solar lanterns supplied (interventions for homestead development, household energy)
- 1,054 ha put under controlled/zero grazing and subject to pasture improvement (sowing fodder) (interventions on grazing land/pasture)
- 412 ha of communal grazing land enclosed/controlled (interventions on grazing land/pasture)
- 969 heads of cattle fattened and sold-off (livestock and poultry-based interventions, fattening and selling off)
- 1,323 heads of sheep and goats fattened and sold-off (livestock and poultry-based interventions, fattening and selling off)
- 1,408 heads of cattle inseminated (livestock and poultry-based interventions, breed improvement)
- 16,349 vaccinations applied (livestock and poultry-based interventions, animal health services)
- 30,637 animals de-wormed (livestock and poultry-based interventions, animal health services)
- 4,704 heads improved poultry breeds supplied (less GHG emitting) (livestock and poultry-based interventions)
- 511 households trained and supported in silage and hay making (livestock and poultry-based interventions)
- 200 ha of farmland are provided with small irrigation schemes, benefiting 200 households



II. Analysis of Impact

2.1. Impact expected as per logframe objectives and their indicators

When comparing the initial logframe attached to the FA/TAPS with the final logframe attached to the Delegation Agreement between the GoE and GIZ, no significant changes are observed apart from the reduction to only one Expected Result (R3) in the latter.

THE OVERALL OBJECTIVE HAS 3 INDICATORS:

OO: To contribute towards achieving Ethiopia's Climate Resilient Green Economy (CRGE) strategy through capacity building and sustainable land management

- Indicator OO.1: Progress made in the implementation of the national Climate Resilient Green Economy (CRGE) strategy
- Indicator OO.2: Total of activities under the national Growth and Transformation Plan (GTP) engaged in CC action
- Indicator OO.3: Contribution of CC adaptation initiatives to growth

THE SPECIFIC OBJECTIVE HAS ALSO 3 INDICATORS:

SO: To increase the awareness and capacity of targeted Government institutions both at federal and regional levels and of the rural population at large to deal with climate change

- Indicator SO.1: The Environmental Council produces reports that confirm progress, clear action plans and constructive trends towards the achievement of the CNCR-E strategy
- Indicator SO.2: At least 40% of the prioritised needs identified by the CNCR-E strategy are met within the project's planning timeframe each year
- Indicator SO.3: As from Year 2, annual reports from the regional line services, Non-State Actors (NSA) and NGOs, will underline improved capacities and better understanding of the CC context

2.2. Direct and indirect impact as reported in the available documents (desk phase)

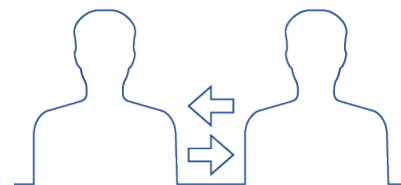
THE ROM REPORT (2013) ON THE *PROSPECTS* FOR FUTURE IMPACT:

"Eventual achievement of the project's outcome and purpose and replication of the identified 'best practices' in other SLM areas, will provide a major boost to Ethiopia's initiative to construct a carbon neutral and climate resilient economy. As the practices help improve the natural environment, streams and rivers will have a more sustained flow of water, providing more opportunities for irrigation, and wells will give a better water supply - which will require less efforts to collect water. Overall, increased infiltration of water in the soil will sustain farming for longer periods and will provide better quality fodder for animals. The result will be more reliable and higher yields that help improve food security and the livelihood status of the communities and the individuals. However, a stronger emphasis on the use of native and endemic species in re-and-afforestation would help prevent the potentially disastrous impacts of exotic species that, although perhaps useful for firewood or fodder, may become invasive weeds and prevent the re-establishment of native wildlife and flora.

Having such a wide scope, unexpected positive as well as negative effects on the target groups, or on the wider environment are likely to occur. However, the project team seemed sufficiently capable to anticipate and timely address such unexpected effects (a.o. through the compensation fund). Donor coherence (Canada, Germany, WB) within the SLM programme is strong, and there is good potential to attract additional donors once the project outcomes appear successful."

FROM THE GCCA GLOBAL EVALUATION REPORT (2014):

- The programme's overall objective was to contribute towards achieving Ethiopia's Climate Resilient Green Economy (CRGE) through capacity building and sustainable land management. The broader Capacity Building objective concerning mainstreaming of climate change in government policies and strategies at the federal level of government institutions was abandoned. The GCCA-E made, however, a *direct and substantial contribution to the Sustainable Land Management objective, with capacity building activities focused on users' organisations and individuals at the various levels involved in the SLM programme.*
- *The objective of Result Area (3), which resulted to be the project's main objective, namely "to field test climate change relevant climate-smart agricultural technologies in the context of the CRGE strategy in selected areas of the SLMP, to analyse and document them for up-scaling" was well on the way of being achieved at the time of evaluation.* For example, certain improved varieties had been adopted and row planting had increased crop yields; the use of improved stoves had reduced fuelwood consumption by more than 40%, also improving women's health; in a few cases, water supply had improved where at the foot of the hills physical and biological structures had been established. Testing, analysis and documentation in view of future up-scaling would still require further work.
- *For the achievement of significant impact, it would be important that successful practices, approaches and technologies to prevent or control land degradation be scaled up.* The natural vehicle available for scaling up best practices was the Ethiopian Strategic Investment Framework (ESIF) for SLM, which was developed by the MoA with involvement of development partners, civil society organisations and other stakeholders. The ESIF had been formulated with the goal of serving as a national level strategic planning framework to guide the prioritisation, planning and implementation, by both the public and private sector, of current and future investments in SLM.
- Afforestation and reforestation in small-holder lands appeared to have good potential for mitigating climate change through carbon storage while also generating local level benefits.
- *Impact monitoring had started*, as impact assessments of the various practices that had been promoted under the GCCA-E project were ongoing. These assessments included elements such as cost-benefit analysis of the tested practices, the additional areas under irrigation, or the health benefits from the use of improved cooking stoves, so as to verify whether the proposed techniques had provided tangible benefits to the farmer households. *First results of this impact monitoring were expected in the course of the year 2014 and should have resulted in the identification of practices with a scope for large-scale replication.*
- Besides the intended benefits, the project had *several positive unintended benefits*, notably in terms of *reinforcing the country's decentralisation programme and contributing to biodiversity conservation.* The project also appropriately incorporated *gender issues* into the design and implementation of the activities.
- Regarding impact, the evaluation report formulated the following recommendations: (1) in the context of the impact assessments, *positive cost-benefit balances of the piloted climate smart practices need to be explicitly demonstrated*; and (2) *the EU should prepare for longer-term GCCA support (5-10 years), focusing on scaling-up and dissemination of good practices, in order to achieve the desired impact.*



FROM THE PROJECT'S FINAL REPORT (2016):

- At the end of the project, 10 documented measures were incorporated as "good practice" into the knowledge management system of the Ministry of Agriculture. Specifically, they were incorporated in the Ministry's climate resilient sustainable land management and agriculture strategy and in the Climate Smart Agriculture field manual (under preparation at the time).

- 9 registered users groups adopted and implemented bylaws with direct relevance to critical management issues, such as management of grazing areas.

FROM THE PROJECT'S FINAL EVALUATION REPORT (2016):

As originally envisaged, the piloted CSA measures were assessed as being successful if they had generated a triple-win situation in the areas of CC adaptation, CC mitigation and livelihood improvement. The approach of piloting the measures with close involvement of the targeted farmers improved their knowledge, capacities and farming practices.

Key achievements included:

- ♦ A new tool for prioritizing and combining the initial measures that were proposed in the basket of options.
- ♦ Increased awareness and capacities through learning by doing and through sharing experiences, e.g. during visits to the field demonstration sites.
- ♦ Improved decision making abilities by individuals and communities and effective adoption of the tested new technologies (or combinations thereof) with minimal external support.
- ♦ The new tool discourages the adoption of single interventions providing one-sided positive effects (e.g. only looking at improved livelihoods by increased yield); it rather promotes the use of combinations or packages of measures based on multidimensional gains and tradeoffs for minimising possible adverse effects.

MENTIONED AS FACTORS THAT ENHANCE IMPACT:

- The evaluation mission (2014) found the project to perform well in terms of *simultaneously addressing climate change and contributing to poverty reduction (scoring A)*. This was achieved thanks to various factors, including (1) a clear focus on livelihoods of farming communities; (2) the provision of resources (transportation, tools, office equipment) to the local agriculture services in order to strengthen their intervention capacities; (3) the building on relatively well established structures and systems of the Sustainable Land Management Programme, which enjoys strong political and donor support.
- Another key success factor was the effective involvement of partner *organisations and institutions at all levels*, from the federal level (Ministries), through the regional and district (Woreda) levels, down to the community level. At the community level, the project fostered and strengthened the organisation of User Groups around watershed management, forest management, climate smart agriculture or other specific objectives, and provided grants to the selected micro-watershed communities, in function of priority needs and works. The Community organisations were established with formalised leadership structures, ensuring broad participation, contracting, communication and eventually carbon benefit-sharing.
- Further, the project had *foreseen in a risk insurance facility for participating communities*, which would compensate communities and individuals for any losses beyond those they would normally have incurred when using the 'traditional' farming system. Thanks to this facility, it had been easier to obtain the farmers' participation as they did not risk their livelihoods. At the time of the evaluation (2014), however, nobody had yet claimed compensation from the facility.
- The project was found to perform particularly well in a number of areas. First, it had established good linkages with local populations as final beneficiaries of the activities. The *use of community facilitators* in the process of executing the GCCA activities had contributed to the promising results achieved to date. Another success factor was the *delegation of management of the GCCA funds to a Member State institution (GIZ) with a distinct comparative advantage in the field of CC and SLM in Ethiopia*. The GCCA-E benefited from proper management and implementation structures, including the SLM Secretariat, Task Forces under the national SLM Technical Committee, as well as Steering and Technical Committees at National, Regional and District (Woreda) levels. Lastly, the Ethiopian Strategic Investment Framework helped to ensure *proper coordination of efforts, harmonisation of approaches, and alignment with government among the various donors involved in the programme*.
- The *experience sharing visits among Woredas had been very important in changing the attitudes of farmers with regard to climate smart initiatives*.

HIGHLIGHTED AS ISSUES FOR IMPROVEMENT:

- Monitoring, and in particular data collection and recording from the field needed further strengthening.

2.3. Summary findings from the desk phase and specific issues to be further explored during the field phase

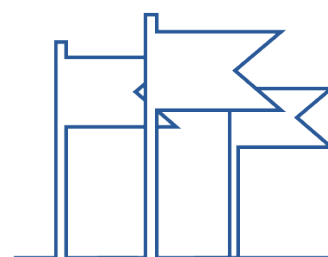
- None of the available reports reported against the above OO and SO level indicators.
- Most of the logframe indicators at the objective levels lack targets. Proxies will be proposed during the field phase when assessing the levels of achievement (box 2.4)
- Apart from assessing the achievement of logframe impact indicators, the following aspects will be analysed: (1) the effective replication and adoption of the tested climate smart agriculture technologies and soil and water conservation measures, using the Basket of Options and the tool developed by the project to prioritise and combine the various measures tested; (2) the role of the Ethiopian Strategic Investment Framework (ESIF) in scaling-up the tested technology packages; (3) impacts generated in terms of CC adaptation (resilience of ecosystems and farming systems), CC mitigation (effects on GHG emissions/sequestration) and livelihood improvement of the rural population.
- The GCCA Global Evaluation Report mentioned that “impact monitoring had started”. During the field phase, stakeholders should be asked about the results of this impact monitoring.
- In 2017, a second GCCA allocation was granted to Ethiopia. This second project supports the implementation of Ethiopia’s Productive Safety Net Programme (PSNP) and builds, amongst others, on the results of the GCCA-E – here under analysis - for replication and mainstreaming purposes. The role and contribution of this second GCCA allocation in enhancing the impact generated by the first project (GCCA-E) should also be analysed during the field phase.
- IFPRI produced two reports on impact generated by components of the SLMP. The publications should be checked on their relevance for the present study. Titles: (1) The sustainable land management program in the Ethiopian highlands: An evaluation of its impact on crop production; and (2) The impact of sustainable land management on household crop production in the Blue Nile Basin, Ethiopia.
- Weblink:

2.4. Achievement of the logframe indicators at overall and specific objectives levels (direct impact)

PRELIMINARY REMARK:

The assessment of the levels of achievement of the OO and SO indicators is based on contributing elements that were observed during the country visit, reported by stakeholders and/or collected from literature. Systematic monitoring and measuring of progress towards the indicators by concerned stakeholders has not taken place. *Annual GCCA Progress Reports do not report against any of the indicators at this level.* Yearly Progress Reports for the 5 year Growth and Transformation Plans (GTPs) are not publicly available.

Further, the absence of clear baselines and targets for most of the indicators makes it impossible to objectively measure their levels of achievement.



INDICATOR	LEVEL OF ACHIEVEMENT	EXPLANATORY NOTES
<p>OO.1: Progress made in the implementation of the national CRGE strategy</p> <p>(no baseline, no target)</p>	100%	<p>As mentioned before, the CRGE strategy is implemented through consecutive 5 year Growth and Transformation Plans (GTPs). The first 2 GTPs, elaborated to date, have consistently prioritised the rehabilitation of degraded landscapes and watersheds through reforestation and afforestation, enhancing soil fertility and reducing soil erosion; an increase in agricultural productivity; the promotion of the livestock sector and alternative income generating activities. These priorities fully coincide with the thematic areas that were addressed by the GCCA-E project.</p> <p>The decision to run a second expanded phase of the SLM programme (SLMP II, implemented between 2014 and 2018) to, amongst others, scale up the activities that were piloted in the 34 districts provides evidence that the GCCA programme successfully contributed to the implementation of the GTP and hence the CRGE strategy. Under SLMP II, the activities were scaled to 142 districts reaching more than 700,000 households.</p> <p>In Ethiopia, growth in agriculture is closely related to poverty alleviation. The CRGE established a target to reduce the prevailing poverty levels to 15% of the population by 2030. GTP 1 aimed to halve poverty from 29.6% in 2010. By 2014/15 poverty had fallen to 23.4 %. Ethiopia is on track to achieving this target.</p> <p>As a conclusion, one can say that indeed substantial progress has been made in the implementation of the national CRGE-strategy and that the GCCA-E project contributed to this.</p>
<p>OO.2: Total of activities under the national Growth and Transformation Plan (GTP) engaged in CC action</p> <p>(no baseline, no target)</p>	75%	<p>As stated above, the first 2 GTPs prioritised the rehabilitation of degraded landscapes and watersheds through reforestation and afforestation, enhancing soil fertility and reducing soil erosion; an increase in agricultural productivity; the promotion of the livestock sector and alternative income generating activities. In the Ethiopian context, these thematic areas fully fit into CC-related objectives, particularly for CC adaptation and for enhancing CC resilience of the population as well as the ecosystems.</p> <p>With respect to CC mitigation, GHG emissions from AFOLU reduced by 30.6% during GTP1 (2nd National Communication, 2015). For example:</p> <ul style="list-style-type: none"> 7,629.1 t CO₂ had been sequestered on 1,189 ha of degraded hillsides as a result of tree planting and area enclosures. A further 53,954 t CO₂ was sequestered as a result from reforestation and improved forest management in watersheds. <p>Linking up to the GCCA-E project, the project focused 100% on the above-mentioned GTP priorities. Starting from a Basket of Options (BoO) related to CSA practices and SWC measures, combinations of options were tested in different circumstances</p>

		<p>for their contributions to the triple goal of CC adaptation, CC mitigation and livelihoods improvement.</p> <p>As a conclusion, one can say that the GTPs 1 and 2 indeed engaged in CC action and that part of the CC-related activities were implemented with support from the GCCA-E. In absence of a target, we assigned a proxy of 75% as level of achievement.</p>
<p>OO.3: Contribution of climate change adaptation initiatives to growth</p> <p>(no baseline, no target)</p>	100%	<p>GTP reports mention progress against agricultural productivity targets; increased yields, in turn, suggest more revenue and hence increased growth, or a higher GDP. Concrete examples are:</p> <ol style="list-style-type: none"> 1. For GTP marker 1 “Increase in smallholders’ yields for major crops”: In 2014/15, the smallholders harvested on average 21.5 quintal per ha which was an increase of 37% when compared with the baseline measurement of 15.7 q/ha. 2. For GTP marker 2 “Additional smallholder contribution to major crops production”: The smallholders’ contributions grew from 180 million quintals (baseline) to 270.3 million quintals in 2014/15, which was an increase of 50%. <p>Another example from a GCCA-E project report (Große-Rüschamp, 2015): Based on samples from a number of woredas where the project intervened, productivity of rain-fed teff had increased with 23% and the productivity of rain-fed wheat had increased with 88%.</p> <p>Evidence from the I&S field visit: In the visited Gonji Kolalah micro-watershed and according to the local community, maize production had increased from 16 to 36 quintal per ha; and teff from 12 to 20 quintal per ha, since the end of the project in 2015.</p> <p>In absence of a target, we assigned a proxy of 100% as level of achievement, based on the available evidence that CC adaptation activities have been effective in raising agricultural production and on the fact that increased production effectively results in growth.</p>
<p>SO.1: The Environment Council produces reports that confirm progress, clear action plans and constructive trends towards the achievement of the CRGE</p> <p>(no baseline, no target)</p>	100%	<p>The Environmental Council was never formally established and therefore did not produce any such report or plan.</p> <p>Yet, other national agencies with a similar role were established or restructured, new facilities and frameworks created, regional and sectoral plans prepared, and progress reports related to the CRGE strategy and its GTPs delivered.</p> <p>Examples include:</p> <ul style="list-style-type: none"> ▪ For the agencies: (1) the Agricultural Transformation Agency established in 2010; and (2) the Ministry of Environment, Forests, and Climate Change which was restructured in 2015. ▪ For the facilities and frameworks: (1) the CRGE Facility; and (2) the Ethiopia Strategic Investment Framework, 2010

		<ul style="list-style-type: none"> For the plans and strategies: (1) the NDC, 2015; (2) GTPs 1, 2 and 3; (3) 9 Regional and 2 City adaptation plans; (4) 5 sectoral adaptation plans, including the Agriculture Sector Adaptation Strategy; (5) the Agriculture Transformation Agenda, 2015; (6) the National Climate Resilience Strategy for Agriculture and Forestry, 2015; and (7) the National Adaptation Plan (NAP), 2019. <p>Progress and positive economic trends were also reported by the federal government: GDP growth of 10.1% per annum from 2010/11 to 14/15; with an increased contribution of the agricultural sector to GDP.</p>
SO.2: At least 40% of the prioritised needs identified by the CRGE are met within the project's planning time frame each year.	100%	<p>The CRGE and GTPs prioritise the rehabilitation of degraded landscapes and watersheds through reforestation and afforestation, enhancing soil fertility, and reducing soil erosion; increased agricultural productivity; development of the livestock sector and the promotion of alternative income generating activities.</p> <p>The SLM programme, under whose framework the GCCA-E project operated, is one of the flagship programmes to implement these goals. Performance of the SLM programme surpassed implementation targets by a significant margin and suggests that prioritised needs were largely delivered on time. Evidence of this good performance – surpassing the targets set in GTP1 - is given by the following data:</p> <ul style="list-style-type: none"> The area of land enclosed for rehabilitation increased from 3.2 million ha in 2009/10 to 10.9 million ha by 2014/15. The total watershed area that is protected from erosion through SWC measures expanded to 20.2 million ha. The total area of denuded land that has been rehabilitated and reforested increased from 6.1 million ha in 2009/10 to 16.2 million ha by 2014/15. An estimated 2.34 million ha of land was made productive through the installment of small scale irrigation schemes.
SO.3: As from year 2, annual reports from the regional line services, NSA and NGOs, will underline improved capacities and better understanding of the climate change context.	65%	<p>The GCCA-E project undertook a range of training and sensitisation activities that assumably resulted in improved capacities and better understanding of the climate change context. A few examples include:</p> <ul style="list-style-type: none"> 706 local experts, development advisors and officials (19% women) at District level were trained in climate smart agriculture and soil and water conservation measures. 7,105 farmers (20% women) were sensitised and trained in climate smart agriculture and soil and water conservation. 24 community groups for Participatory Forest Management were established and trained Several exchange visits for sharing experiences were conducted. <p>During the field visit, community members of Gonji Kololah informed that on at least two occasions during the project, a bus</p>

load of farmers from surrounding woredas had been brought to their place to observe and to learn about the SWC practices being applied there to rehabilitate degraded hillsides and micro-watersheds.

A study conducted by GIZ in 2019 on the capacities at woreda level, indicated that woredas indeed showed basic capacities for CC adaptation, with a focus on CSA practices and SWC measures. In fact, with 20 woredas surveyed and capacity levels ranging from 1 (lowest) to (5) highest, 80% scored 3 or higher.

The level of achievement (65%) is the aggregated score of the surveyed woredas (highest capacity for all 20 woredas surveyed would have given 100).

2.5. Achievement of the overall and specific objectives (direct impact, exceeding the scope of the indicators)

OVERALL OBJECTIVE (OO): To contribute towards achieving Ethiopia's Climate Resilient Green Economy (CRGE) through capacity building and sustainable land management

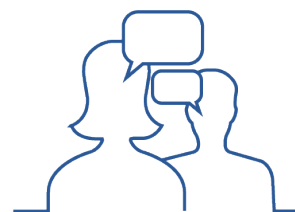
Achievement: "1" (>75%)

EXPLANATORY NOTES:

As already mentioned above, the CRGE strategy is implemented through consecutive 5 year Growth and Transformation Plans (GTPs). These GTPs have consistently prioritised the rehabilitation of degraded landscapes and watersheds through reforestation and afforestation, enhancing soil fertility, and reducing soil erosion; increased agricultural productivity; development of the livestock sector and the promotion of alternative income generating activities; priorities that are all directly or indirectly linked to sustainable land management.

The thematic areas covered by the GCCA-E project coincide with the above listed GTPs priorities. Further, based on the available reports (see box 2.2) and the list of outputs delivered (see under "project details and outputs delivered"), the project – with interventions in 34 microwatersheds in 34 different woredas - has certainly contributed to the implementation of the GTPs (and therefore also the CRGE strategy), and particularly to making land management more sustainable.

Regarding capacity building, the broader capacity building objective concerning mainstreaming of climate change in government policies and strategies at the federal level of government institutions was abandoned. Still, substantial awareness, knowledge and capacity was built at the local level, including local authorities, community-based organisations and farmers, mainly through learning by doing and through sharing experiences, e.g. during visits to the field demonstration sites (using the farmer field school approach). Another reported outcome of the project relates to the improved decision making abilities by individuals and communities and the effective adoption of the tested new technologies (or combinations thereof) with minimal external support.



During the field mission, only 1 micro-watershed was visited (Gonji Kololah) where members of the community including the Chairman, the priest, and a number of male community members were

interviewed. The interviewees were positive on the benefits the project had brought to them, testifying that:

- Water flows and water availability had increased due to the SWC measures
- The irrigation system had allowed to increase yields as well as the variety of crops cultivated, and consequently had increased revenues
- A sort of micro-climate had been installed within the watershed as a result of treeplanting and rehabilitation of formerly degraded lands and hillsides.
- They were now selling their cattle for prices well above the average. Before, they sold cattle for about 7,000 ETB per head; while the average market price is around 45,000 per head, the village routinely sells for 60,000 per head, and for a bull they can fetch 70,000 per head. The higher prices are due to the more healthy, better fed animals.
- The village had emerged from extreme poverty: 100% of the children in the village were now attending school; villagers were buying proper clothes and shoes; the village had purchased a flour mill with communal resources; the village revolving fund had given them access to credit; and occasionally the village was in a position to hire casual labour during harvest times to assist with harvesting.

SPECIFIC OBJECTIVE (SO): To increase the awareness and capacity of targeted Government institutions both at federal and regional levels, and of the rural population at large to deal with climate change

Achievement: “2” (between 50 and 75%)

EXPLANATORY NOTES:

As clarified before, the capacity building and awareness raising activities for the government institutions at federal and regional levels were abandoned following difficulties with the intended implementing partner (AfD).

On the other hand, substantial training and sensitisation efforts were deployed targeting government staff at woreda levels, local development partners and, above all, farmers. (see list of outputs for further details)

The project also significantly strengthened expert capacity at the regional government level (3 regions benefited) by funding and training experts in the respective major technical areas such as crop production, livestock, irrigation and natural resources. According to interviews conducted during the visit, these positions continue today and are funded by the government.

See also box 2.4, under achievement of indicator SO.3.

2.6. Signs of indirect impact

The GCCA-E project successfully encouraged income diversification, generating a number of indirect benefits: increases in assets owned by farm households (for example, livestock, televisions, solar panels); within the communities, an increase in employment opportunities is observed (e.g. landless people now find a demand for their labour services); and health and education levels have grown.

Gebregziabher et.al (2016) studied six watersheds in three districts where the GCCA-E project had been implemented. Communities perceived that their farm income had increased by an average of 50%, which resulted in a 20-90% improvement in farm household food security since the SLM Programme began. Risk of crop failure had reduced by 10-50 %, and diverse income generating activities were spreading risks and increasing incomes. Women have been empowered; amongst others as a result of the training they received in the production of locally-made, energy-saving stoves which they currently commercialise and through which they generate their own income.

Moreover, the successful watershed management - as promoted by the project - triggered farm household investment and technology adoption in adjacent watersheds. (replication effect) A study comparing productivity of farmers practicing CSA and SWC measures found strong evidence that on sites that had not been subject to interventions, farmers were in fact implementing some CSA and SWC practices including the building of terraces and planting soil bunds on contours, suggesting positive learning effects and that dissemination of CSA and SWC practices was taking place within woredas outside of the project's intervention area.

The above study findings are consistent with what was observed by the consultant during the field visit to just one micro-watershed. During interviews, the community provided numerous qualitative and quantitative examples suggesting the village had emerged from subsistence poverty as an indirect benefit of the GCCA-E project. (see box 2.5 where the examples were detailed)

2.7. Conclusions on direct and indirect impact generated by the project and discussion on factors for success and failure

GENERAL CONCLUSION

Substantial evidence has been collected for impact, direct as well as indirect, generated by the project. A full and quantified assessment was however hampered by the lack of relevant data and by a deficient M&E system during and after the project implementation. Moreover, the consulting conducting the field mission had only been able to visit 1 out of 34 micro-watersheds where the project had intervened. In addition, it concerned an exemplary place (picked by the MoA), as suggested by the many visits from all over Ethiopia they receive.

FACTORS CONDUCIVE TO GENERATING IMPACT

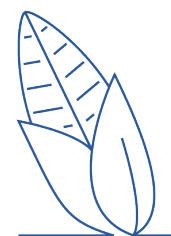
- Effectiveness of promoted/introduced measures or activities. Example: the production of fuel-efficient cooking stoves as a commercial activity by women groups which generates good income.
- Adequate training and transfer of skills before the end of the project.

FACTORS HAMPERING THE GENERATION OF IMPACT

- Lack of buy-in or ownership of promoted/introduced measures or activities. For example, it is difficult to get buy-in for laborious measures with effect at longer term such as terrace building and contouring. In these cases, some interest can be gained by making the task less difficult and laborious, e.g. by providing tools or labour.

It is also hard to get buy-in for replacement of practices with short term but limited gains (or negative long term effects) with alternative practices that at the long term are much more profitable, or advantageous in any other way. An example from the project: short term gains by selling livestock off immediately in periods of drought and food shortage versus long term benefits in maintaining and feeding livestock and selling gradually at moments with a good market price.

- Adoption of new practices is hampered when the required inputs are expensive or not available (and often provided by the project during implementation). Example: improved seeds



III. Analysis of Sustainability Levels

3.1. List of services, systems and products that were established/delivered under the project and that should have been maintained (based on the outputs delivered)

- Continued use of the Basket of Options describing the 24 measures tested and analysed and the tool to prioritise and combine the measures for application in different situations and landscapes
- Community groups (24) for Participatory Forest Management still operational
- Farmer field schools (12) still operational
- Trees planted in degraded forest areas (124 ha of enrichment planting) still standing
- Terraces (547 km) maintained by the farmers
- Beekeeping in the supported area still practiced as livelihood option (609 beehives were distributed)
- The technique of preparing compost with Effective Micro-organisms still practiced
- The technique of silage and hay making still practiced (511 households were trained in the technique)
- Water pumps (93 installed) still in place and functional
- Fuel efficient stoves distributed by the project still used
- Biogas plants (15) still in place and in production
- The practice of controlling/enclosing communal grazing land still applied (412 ha were enclosed with the project)
- Continued de-worming and vaccination campaigns by the animal health services in the 34 micro watersheds
- Irrigation systems (2 schemes covering 200 ha of land) still in place and functional

3.2. Information and comments on sustainability aspects from the available reports (desk phase)

THE ROM REPORT (2013) ON *POTENTIAL* SUSTAINABILITY:

- The sustainability of project outcomes appeared to be very good. The collaboration with the main partner (MoA) was good, and a strong ownership by communities of the promoted technologies was noted. Most of the promoted technologies had the potential to make farming systems more productive and sustainable. On the financial side, if incomes will effectively increase, farmers would be able to purchase themselves seed for improved varieties (i.e. triticale and teff), whilst maintenance of other introduced technologies could be done by the communities without additional costs.
- The ROM's recommendation to enhance potential sustainability was: Projects such as these that require a permanent mind set change of the communities need a much longer (8-10 years) implementation period if the outcomes are to be successfully sustained; as well as a family health/family planning component to provide long term sustainability for the communities and the environment they depend on.

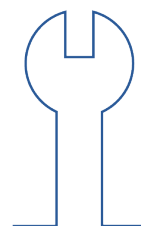
FROM THE GCCA GLOBAL EVALUATION REPORT (2014):

- Prospects for sustaining the initial results appear to be good for a number of reasons, including:
 - ♦ Adequate policy and strategy support; the SLMP was considered to be a Flagship Programme for the ESIF, which is the instrument for scaling-up pilot activities.
 - ♦ There appeared to be a commitment of the local governments and communities to mobilize resources at all levels (Federal and Regional, District). Community-level contributions to the project were considerable.

- ♦ Effective community mobilization and awareness efforts and proper technical assistance from SLMP Coordination offices were resulting in an empowerment of the communities and the woredas. Furthermore, micro-watershed associations and other village-level user groups were made responsible for the climate smart agricultural and forestry technologies.
- ♦ The identification of activities built on both indigenous and introduced land management practices, technologies and approaches, which enhanced local ownership.
- ♦ There was a sustained interest of donors, such as the World Bank, and development partners to technically and financially support the SLMP and align their activities.
- GIZ was expected to continue supporting the SLMP with process-oriented capacity development through advisory services, coaching and training throughout the watershed planning and implementation cycle. Although the funding cycle for SLM by German cooperation was scheduled to close at the end of 2014, it was generally expected that the Ethiopian Government was interested in a continued and expanded support to the SLM programme over the next years.
- Capacity building under the GCCA-E was aimed at creating the right conditions for sustaining and 'locking-in' project results. On the one hand, institutional capacities of users' organisations (for water use or forest management, beekeeping, etc.) were being strengthened. This included the construction of offices and stores for the supported associations, as far as necessary. On the other hand, human capacities were developed through technical training sessions and through field visits, in particular exchange visits between representatives of different districts.

FROM THE PROJECT'S FINAL REPORT (2016):

- Regarding the "delivery mechanisms" used: The field-testing of technologies had been facilitated by using an upfront payment mechanism whereby beneficiaries were provided with inputs or ex-ante financial payments. While this mode of delivery was very effective for implementation, unfortunately it distorted measuring sustainable adoption. This aspect needs careful consideration when building climate-smart combinations, whereby measures which require external inputs should be combined with measures that require change of practices.
- Activity 3.5 focused on "Ensuring Sustainability" of the project, or "the development and testing of 'lock-in' mechanisms or strategies".
 - ♦ Organising the beneficiaries in community groups was a key aspect for the development of a successful lock-in strategy. The group approach allowed a very effective delivery mechanism and at the same time facilitated to include poor members of the community (female headed households, unemployed youth, etc.). One had to consider, however, that the people most vulnerable to climate change effects are not necessarily the poorest in a community. The identification of beneficiaries took this finding into account. The group approach also empowered the community at large and further strengthened the self-sustained implementation of climate-smart measures.
 - ♦ Another important aspect of the 'lock-in' strategies for sustainability was related to the recommended climate-smart measures. For measures and their combinations that could be implemented using mainly locally available and affordable inputs, the likelihood of sustained adoption would be higher due to a higher degree of independency on external inputs, e.g. seeds or breeds.
 - ♦ Also the technical complexity of the promoted climate-smart measures and combinations influenced the success of a 'lock-in'. More complex measures demanded a higher level of accompanying capacity development, what required more resources and time to ensure a large number of farmers would continue to practice climate-smart techniques and SWC measures without continued external assistance.



FROM THE GCCA TECHNICAL FICHE, COMPLETED BY THE EUD PROGRAMME MANAGER :

The aspect of sustainability is easily neglected under the piloting aspect, even more so as piloting often justifies free input provision to farmers. For example, if under such conditions hybrid seeds are being provided to improve yields, the sustainability aspect is highly questionable.

3.3. Summary findings from the desk phase and specific issues to be further explored during the field phase

Sustainability was given due attention during project design and implementation. Generally, the available reports point towards positive prospects for sustainability, while concerns exist regarding the financial capacity or willingness of the targeted farmers to invest themselves in the recommended CSA and SWC measures.

Issues to be further explored:

- Check whether the following has effectively happened and whether the CSA field manual is being used (and updated): *“Recommended good practices are being uptaken by MoANR, who are incorporating them into their climate resilient sustainable land management and agriculture strategy. Currently the MoANR is incorporating the recommendations into their “CSA field manual” (in preparation)”*.
- It is reported that the project produced a study “Comparing effective adoption of technologies with their CSA scores”. The consultant who will conduct the field phase, will try to get hold of this study document and integrate the findings in the field phase report.
- In 2017, a second GCCA allocation was granted to Ethiopia. This second project supports the implementation of Ethiopia’s Productive Safety Net Programme (PSNP) and builds, amongst others, on the results of the GCCA-E under analysis for replication and mainstreaming purposes. The role and contribution of this second GCCA allocation in enhancing the sustainability of the outputs and outcomes of the first project (GCCA-E) will also be analysed during the field phase.

3.4. Results of the sustainability analysis (as per table in Annex)

14 items were checked for their sustainability. Information could be collected for 13 of these.

The scores of these 13 items are as follows:

- 2 items (15%) scored 1, meaning that they were fully sustained and expanded/improved
- 8 items (62%) scored 2, meaning that they were fully sustained in a “status quo” situation
- 1 item (8%) scored 3, meaning that it still exists but with quality and/or coverage issues
- 2 items (15%) scored 4, meaning that they disappeared or lost functionality

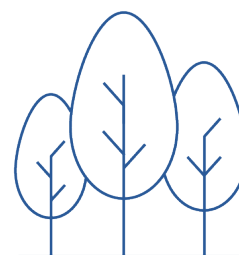
Evidence was found through direct observation for 8 items (62%); through reporting by reliable sources for 4 items (30%); and through a combination of direct observation and reporting by a reliable source for 1 item (8%). In this regard, it must be added that the direct observations made by the consultant are limited to only 1 of the 34 micro-watersheds where the project had been active. The scores have therefore limited representativeness and must be interpreted accordingly.

The items that scored best on sustainability are (1) the continued use of the Basket of Options and subsequent documents (manuals, guidelines, tools for prioritisation) in planning and applying combinations of CSA practices and SWC measures in specific contexts; and (2) the continued reforestation/afforestation efforts to protect hills from erosion and to restore degraded land.

The items that were discontinued are the farmer field schools (reported) and the biogas plants (with evidence for only 4 of the 11 biogas plants that had been installed).

Further findings related to sustainability:

- The tested CSA practices and SWC measures are fully integrated into the MoA Climate Smart Agriculture manual, meaning the MoA took full ownership and continues their dissemination.
- Stakeholder participation and training is fundamental to long-term continuation of activities leading to impact. While the project had promoted wide participation and had trained the participating farmers through FAO's farmer field school approach, there has been no continuation. This service should have been provided by the extension staff/system at woreda level. Lack of staff and expertise (e.g. only 1 staff per technical area (crops, irrigation, natural resources and livestock) available at regional level) seem to be at the basis of these inadequate training and advisory services from the government. This also applies to the availability of veterinary services, much needed for e.g. successful poultry keeping which is practiced by many of the poorer farmers.
- The project's interventions on degraded hillsides, including tree planting and terrace building, appear to have been maintained, with good prospects for long lasting impact. Treeplanting continues, micro climates have emerged and water flows have increased. These interventions enjoy high-level political support and GTP progress reports mention that thousands of hectares of degraded hillsides are being added each year to the volume of rehabilitated hillsides.
- Generally, the Soil and Water Conservation measures (terracing, contour planting, composting, enclosures, etc) were maintained though in many cases labour intensive and time consuming. In this respect, it was found that the provision of tools, facilitating the work, is important in enhancing sustainability.
- The project's support in installing irrigation systems was well appreciated by the beneficiaries as it had allowed them to significantly increase yields and diversify the crops they could cultivate. The interviewees reported that they were very interested in extending the current system.



3.5. Conclusions on the sustainability aspects and discussion on factors for success and failure

The overall sustainability of the outputs of the GCCA-E intervention is good.

A majority of the piloted CSA and SWC activities were assessed to be effective and to deliver on the envisaged triple bottom line, being CC adaptation, CC mitigation and improved livelihoods. Thanks to their positive effects, the piloted measures and techniques are now widely accepted and sustained.

Poverty alleviation continues to be the number one priority of communities and the government, and the fact that the project integrated climate resilience and livelihood enhancing activities, created a good foundation for long term stakeholder support.

The much needed training and/or advisory services were not sustained due to lack of staff and expertise at the MoA's extension unit. Currently, extension activities are only carried out in some woredas that are supported by other donor-funded projects.

An important factor in the success of the project lies in its embedding within a government flagship programme (SLMP) that focused on the attainment of the CRGE strategy goals – which were also perfectly reflected in the principles underlying the Basket of Options and subsequent manuals for CSA and SWC.

All stakeholders, from GIZ to the MoA and the communities, are of the opinion that a second SLMP phase had been necessary and instrumental in achieving the current levels of sustainability. The remaining sustainability issues concern the provision of critical funding flows as well as other inputs including training capacity, and technical equipment.

It is worth noting that the subsequent GCCA+ project "Mainstreaming of Climate Smart Planning and Implementation Approaches into the Productive Safety Net Program (PSNP) IV in Ethiopia", will apply some key lessons learned from GCCA-E. project The PSNP seeks to transition about 10 million people out of chronic food insecurity by 2020. It aims to provide some welfare to food insecure households in the most vulnerable woredas, to integrate climate smart initiatives into public works planning and implementation,

GCCA +

THE GLOBAL CLIMATE CHANGE ALLIANCE PLUS INITIATIVE



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including in rehabilitating public lands, and to help households to diversify their incomes. The new GCCA+ project builds largely on a programme implemented by Cornell University, but brings to it a landscape level, using watersheds as the entry point for the rehabilitation of degraded lands and for improving livelihoods. It also aims to replicate the 'doing things differently and doing different things' approach of the Basket of Options, applying this to different environmental scales and problems to support local communities in rural settings.

IV. Additional Elements

4.1. M&E Practice

M&E ACTIVITIES THAT HAVE TAKEN PLACE:

Internal:

- The project's M&E system was activity-based, as opposed to results-based (and measuring impact), and not operating very well. The system focused on what got *done* rather than what was *achieved*.

The project's evaluation report (Eshetu, 2016) confirmed this and highlighted the lack of a coherent logframe, even though the pilot interventions were generally successful and the objectives were achieved.

Echoing this view, a 2018 World Bank evaluation of the SLMP (1 and 2) M&E system noted that GIZ had put much effort in improving the initial M&E system. Concretely, GIZ developed a results-based M&E manual in 2014 which was updated in 2015 with changed results and indicators.

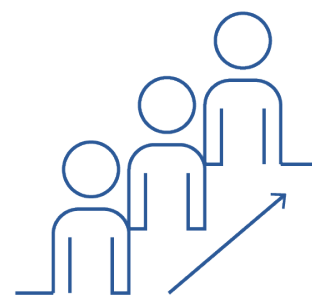
They also developed new definitions and data collection tools. However, all these elements were captured and distributed as separate documents which created confusion amongst the stakeholders on how to operationalise the M&E system. (McKoy et al., 2018).¹⁰

Also L. Kleemann et al, 2017 who reviewed the M&E system for the Sustainable Land Management Programme with a particular focus on the KfW-financed interventions in SLMP II, explicitly reported widespread dissatisfaction with the system that would have been in place at the time of the GCCA-E project. Critical voices came from the World Bank, the Ministry of Agriculture and even the Programme Coordination Unit. It noted for example that a Planning and Reporting Tool (PRT) developed by GIZ was only used for planning. Envisaged local monitoring visits and data collection were not or very partially implemented¹¹. Further, monitoring was said to be focused on physical achievements, and that no overall (IT) system had been in place.

Interviews during the I&S field mission revealed a lack of clarity amongst stakeholders about M&E responsibilities. GIZ claimed that the collection of data and information concerning project impact and sustainability was not their responsibility as project implementers. The Ministry of Agriculture, on the other hand, did not agree with GIZ' point of view and even suggested that GIZ should have data, but that it was not shared.

Further, the project and its logframe were never properly adjusted following the cancellation of Result areas 1 and 2, which targeted capacity building at national level with the Environmental Protection Authority (EPA) as main partner. The only items that were adapted in the logframe concerned the 'means of verification' for the SO and OO indicators where the EPA reports were removed.

In summary, the project's M&E system showed various deficiencies that affected the generation of information on effectiveness, impact and sustainability, thereby also impeding the current assesment of impact and sustainability.



¹⁰ The project 'suffers from a multitude of documents that present various, though similar versions, of the results framework, theory of change and indicator sets, and that none of these documents is particularly insightful in terms of the linkages connecting inputs, outputs, intermediate outcomes and the ultimate overarching objective'.

¹¹ During the I&S field visit, it was noted that the woreda representative had never visited the site of Gonji Kolalah prior to the I&S study.

- The project (SLMP I, with the GCCA-E project being part of it) conducted some specific studies, involving technical monitoring of the effects of the improved land management practices.
They include :
 - ◆ The evaluation of piloting Climate Smart Agriculture measures (Eshetu, 2016)
 - ◆ The study “Productivity and Income Contribution of Family Farm Enterprises in Amhara”, conducted by Große-Rüschamp, 2015.
 - ◆ Andode, 2016 had collected woreda-based project data but they were never published.
 - ◆ Schmidt & Tadesse (IFPRI) produced the following two reports on impact generated by components of the SLMP: (1) The sustainable land management program in the Ethiopian highlands: An evaluation of its impact on crop production; and (2) The impact of sustainable land management on household crop production in the Blue Nile Basin, Ethiopia.

External:

- A ROM was conducted in 2013
- The project figured as a case study in the global evaluation of the GCCA programme, 2014
- The above-mentioned review of the programme’s M&E system, produced by Kleemann et al., 2017

% OF BUDGET ALLOCATED TO M&E THAT HAS BEEN EFFECTIVELY USED:

No information on this aspect could be collected during the field trip.

ADDITIONAL M&E REPORTS THAT WERE COLLECTED:

- Große-Rüschamp, A., Productivity and Income Contribution of Family Farm Enterprises in Amhara, Amended Final Draft, GIZ, 2015
- Kleemann, L., et al., M&E Mission Report, Jan-March 2017
- Mengesha, B., Good Practices of Climate Smart Agriculture., GIZ, 2014
- Schmidt, E., and Tadesse, F., The Sustainable Land Management Program in the Ethiopian Highlands: An Evaluation of Its Impact on Crop Production, IFPRI Research Note 68, August 2017,
- Schmidt, E., and Tadesse, F., The Impact of Sustainable Land Management On Household Crop Production in the Blue Nile Basin., Wiley Online Library, January 2019

4.2. Contributions to GCCA+ knowledge management and communication

PROJECT-SUPPORTED RESEARCH AND RESEARCH FINDINGS:

The following publications are directly or indirectly linked to project-supported adaptive research:

- Mengesha, B., Good Practices of Climate Smart Agriculture., GIZ, 2014
- Schmidt, E., and Tadesse, F., The Sustainable Land Management Program in the Ethiopian Highlands: An Evaluation of Its Impact on Crop Production, EDRI Research Note 68, August 2017,
- Schmidt, E., and Tadesse, F., The Impact of Sustainable Land Management On Household Crop Production in the Blue Nile Basin., Wiley Online Library, January 2019
- Zeleke G., Exit Strategy and Performance Assessments for Watershed Management (ESPAWM) – A Guideline for Sustainability, Water and Land Resources Centre, 2015

COLLABORATION WITH SCIENTIFIC INSTITUTIONS: none

COMMUNICATION MATERIALS

Testimony (drafted by the field visit consultant as a story):

“Prior to the GCCA-E project, the Gonji Kololah micro-watershed in the Banja district (woreda) had been severely degraded. Grasslands were overgrazed and denuded with deep gullies caused by soil erosion so that they could not be crossed by livestock. For the community of 299 households (~1,120 persons), mainly livestock farmers, the degradation of the micro-watershed and surrounding lands was an economic catastrophe. Women walked up to 15 km to fetch water, and cooking was done using wood which had bad respiratory effects. The community was too poor to school their children, purchase clothes, and lived from season to season. Much of the top soil had disappeared leaving the basalt rock beneath exposed.

The GCCA supported the rehabilitation of the Gonji Kololah hillsides, providing inputs and training for the community to:

- ♦ Enrich the forest at the top of the hill which today is densely planted with 40-50 ft trees;
- ♦ Compost using microbes, which is still being practiced;
- ♦ Build biophysical structures covered with forage and planted shrubs to stop run-off when rain falls and wind from blowing away soils – these have been maintained
- ♦ Plant a variety of trees up the hillside. These include *Acacia saligna*, *Acacia decurrens*, *Grevilia robusta*, *Cordia africana* and *Cypressus lusitanica*. It was evident that tree planting is ongoing with trees at different stages of maturity ranging from saplings to more mature trees of 10-15 feet, through to areas, including gullies, that are densely planted with mature trees too thick to walk through;
- ♦ Enclose animals so that grasses could recover.

Micro-climates have emerged. Grass fed bulls raised in this village usually fetch 50% above the market average. Water pumps installed by the project were all still in use and had improved the lives of women who no longer had to walk for miles. Fuel efficient cook stoves supplied by the project were still in use and had reduced foraging for wood and smoke in houses. The villagers also produce poultry and chicken and eggs are on the menu. Crops have been diversified and include fruit trees, while yields have improved across the board.

Among the most telling impacts of this development progress, all of the children in the village are able to attend a newly built local school that was partially supported by WWF. Using a revolving village fund, villagers support one another in making vital purchases, including a communal flour mill. With these steps, villagers have new dreams for the future: a large irrigation pump, a tractor to plow the land. Dreams that just a decade ago, were beyond imagination”.

4.3. Opportunities for scaling up (future GCCA support activity)

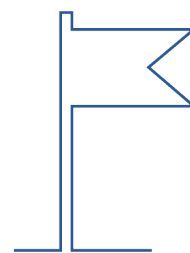
The government has repeatedly prioritised efforts to rehabilitate degraded lands and watersheds, recognising that this approach provides opportunities to alleviate poverty while expanding green agricultural approaches. This means there are theoretically many opportunities to scale the approach – as was / is being demonstrated in the GCCA-E and PSNP IV GCCA+ projects – to other sectors and communities each with their own context. The Government however lacks the needed funding and will not be able to ensure replication through its own services.

4.4. Climate Finance – evidence of funding mobilised from public and/or private local sources.

The village that was visited had established a savings cooperative which is an innovative financing mechanism to support communal and individual upgrades. Examples of purchases done so far include a flour mill, and several televisions.

The Government established the Ethiopian Strategic Investment Framework (ESIF) as a framework (not a fund) for spurring partnerships between national, international, public and private collaborators to fund SLM activities, and to guide the allocation of resources. More information on the ESIF could not be obtained; the consultant doing the I&S field mission had been unable to meet with the designated government official at the Ministry of Finance. It is therefore not clear to what extent the ESIF is succeeding in achieving its goals).

At the moment, national climate expenditure includes small amounts of national funding, but the vast bulk is sourced internationally. Nevertheless, Ethiopia has strengthened its tax revenue collection and there is a strong presumption that domestic revenues will represent an increasing proportion in the country's total climate finance. Until these domestic sources can be mobilised, including possible revenues from carbon markets, it is difficult to see the resource gaps being filled on a permanent basis.



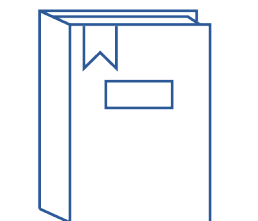
V. Sources of Information

DOCUMENTS COLLECTED AND CONSULTED FOR THE DESK PHASE ANALYSIS:

- **Programming documents**
 - ♦ Action Fiche, 2010
 - ♦ Financing Agreement (2011) with TAPS, initial logframe and budget + Addendum 1
 - ♦ Addendum 1 to Delegation Agreement (DA) with GIZ (but not the actual DA)
- **Progress reports**
 - ♦ Evaluation of piloting Climate Smart Agriculture measures, Z. Eshetu, Addis Abeba University, 2016
 - ♦ Final project report, 2016
- **Monitoring and Evaluation reports**
 - ♦ ROM Report, 2013
 - ♦ Mission Aide Mémoire : Ethiopia. GCCA Global Evaluation. E.Topper, April 2014.
- **Others:**
 - ♦ Action Fiche of GCCA+ Ethiopia, Phase II

ADDITIONAL DOCUMENTS COLLECTED AND CONSULTED DURING THE FIELD PHASE:

- ♦ Andode, Melka., Oromia Region, GCCA-E Project Woreda Data, 2016, not published.
- ♦ Deichert G, Gobena A.G., Blum L, and Kersting D., SLM: Climate Smart Agriculture: A Manual for Implementing the Sustainable Land Management Program – Part 1: General Concept and Operational Approach, 2015
- ♦ Federal Democratic Republic of Ethiopia, Ethiopia's Climate Resilient Green Economy, 2011
- ♦ Federal Democratic Republic of Ethiopia, *Ethiopia's CRGE, Climate Resilient Strategy, Agriculture and Forestry*, 2015
- ♦ Federal Democratic Republic of Ethiopia, *Ethiopia's CRGE National Adaptation Plan*, 2019
- ♦ Gebregziabher, G., Assefa Abera, A., Gebresamuel, G., Giordano, M., and Langan, S., An Integrated Assessment of Watershed Management in Ethiopia, IMWI Working Paper 170, 2016
- ♦ GIZ, SURED Woreda Capacity Assessment – Baseline Study, Draft June 2019
- ♦ Große-Rüschamp, A., Productivity and Income Contribution of Family Farm Enterprises in Amhara, Amended Final Draft, GIZ, 2015
- ♦ Jirka S., et al., Ethiopia's Productive Safety Net Program (PSNP) Climate Smart Initiative – Executive Summary for Policy Makers 2018
- ♦ Kleemann, L., et al., M&E Mission Report, Jan-March 2017
- ♦ Mengesha, B., Good Practices of Climate Smart Agriculture., GIZ, 2014
- ♦ Schmidt, E., and Tadesse.F., The Sustainable Land Management Program in the Ethiopian Highlands: An Evaluation of Its Impact on Crop Production, IFPRI Research Note 68, August 2017,
- ♦ Schmidt,E., and Tadesse.F., The Impact of Sustainable Land Management On Household Crop Production in the Blue Nile Basin., Wiley Online Library, January 2019
- ♦ Zeleke G., Exit Strategy and Performance Assessments for Watershed Management (ESPAWM) – A Guideline for Sustainability, Water and Land Resources Centre, 2015



RELEVANT WEBSITES:

- ♦ <https://www.giz.de/en/worldwide/67964.html>
- ♦ <http://www.ifpri.org/publication/sustainable-land-management-program-ethiopian-highlands-evaluation-its-impact-crop>
- ♦ <http://projects.worldbank.org/P133133?lang=en>
- ♦ <https://thereddesk.org/countries/initiatives/sustainable-land-management-programme-ethiopia>
- ♦ <http://www.moa.gov.et>
- ♦ <http://www.ccaf.cgiar.org>
- ♦ <http://www.iwmi.cgiar.org>
- ♦ <http://www.ecommons.cornell.edu/handle>
- ♦ <http://www.ata.gov.et>
- ♦ <http://www.worldbank.org>

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Community Members


- ♦ Endeshaw Alemu, Chairman of Kebele village
- ♦ Dires Feleke, Community Representative
- ♦ Yazachew Gel, Community Representative
- ♦ Molla Ayalew, Community Representative
- ♦ Sinamaw Jemere, Community Representative
- ♦ Kes Maregies, Community Representative
- ♦ Yenice Ante Menzie – Extension Worker

Annex to the Report: Sustainability Analysis

NR	DESCRIPTION OF SYSTEM/SERVICE/PRODUCT TO BE SUSTAINED	SCORE	EVIDENCE	EXPLANATORY NOTES
1	Continued use of the Basket of Options describing the 24 measures tested and analysed and the tool to prioritise and combine the measures for application in different situations and landscapes	1	D,R	A consultant working at the PSU confirmed that the BoO was still in use and being constantly updated and developed, as was intended. The document "Good practices of Climate Smart Agriculture, 2014" contains a description of all options with an additional three. The subsequent "CSA: Manual for Implementing the SLMP, part 1, 2015" presents guidelines for optimal combinations of the individual options as well as examples of combinations for various land-use types. The BoO and the above-mentioned documents are widely used in SLM programmes as technical guides.
2	Community groups (24) for Participatory Forest Management still operational	2	R	During interviews with the woreda representative it was reported that such community groups were still operational. The field visit revealed a well organised Participatory Forest Management Community Group, though its mandate went beyond forests management and included CSA, land management and natural resource management. Also the baseline study ¹² prepared by GIZ in preparation of its new programme "Sustainable Use of Rehabilitated Land for Economic Development – SURED" provides strong evidence that community associations in the region continue to meet and engage in participatory land use planning.
3	Farmer field schools (12) still operational	4	R	Community members in Gonji Kolalah reported they had received no training at all since 2016. This is consistent with comments from community members in other project intervention areas (laid down in reports). They had mentioned that initial training had been useful, but not sufficient and discontinued. Other evidence of deficient training relates to the installation of 4 biogas plants by the project without providing training for maintenance. Meanwhile, the plants broke down and have been left inoperable for the last four years. The GIZ baseline study for the SURED programme indicated that in general the impact of training activities had been relatively low.
4	Trees planted in degraded forest areas (124 ha of enrichment planting) still standing	1	D	The field visit to Gonji Kolalah provided evidence that the trees planted in 2014 were still standing and had grown well. Moreover, people had continued planting trees to stop erosion in neighbouring gullies and degraded hillsides. Across the highlands, outside Gonji Kolalah, there is evidence of continued reforestation efforts, particularly on hilltops and degraded lands.

¹² SURED Woreda Capacity Assessment – Baseline Study, GIZ, 2019

5	Terraces (547 km) maintained by the farmers	2	D	While there are no systematic data available on the continued use and maintenance of the terraces, it was observed during the field trip that this practice is very widely employed in the Ethiopian highlands, including in the micro-watershed visited.
6	Beekeeping in the supported area still practiced as livelihood option (609 beehives were distributed)	5		Anecdotal, beekeeping appears to be commonly practiced as income generating activity, especially by landless (or poor in land) community members. Beekeeping was not observed during the field trip and no relevant data were found in GCCA-E reports and documents.
7	The technique of preparing compost with Effective Micro-organisms still practiced	2	D	Community members that were interviewed commented that they were still practicing the promoted composting technique. Soil fertility however remains challenging.
8	The technique of silage and hay making still practiced (511 households were trained in the technique)	2	D	Poultry and livestock are all kept in enclosures to rehabilitate grazing land. Grasses have reappeared in abundance and are cut for hay and silage.
9	Water pumps (93 installed) still in place and functional.	2	D	Water pumps provided as part of the programme were still working and, as reported, had particularly improved the lives of women.
10	Fuel efficient stoves distributed by the project still used.	2	D	The fuel efficient stoves (using charcoal as fuel rather than wood) that had been supplied by the project were still in use. They were well accepted as they produced less smoke and had a positive effect on women's well-being.
11	Biogas plants (15) still in place and producing	4	D	See also item 3 for the comments of 1 community where 4 plants were installed and that have been broke now for four years. There is no information on the 11 other biogas plants.
12	The practice of controlling/enclosing communal grazing land still applied (412 ha were enclosed with the project)	2	D	Livestock is now kept in enclosures. Previously severely overgrazed land has recovered and become productive to the extent that grass can now be harvested for feeding.
13	Continued de-worming and vaccination campaigns by the animal health services in the 34 micro watersheds	3	R	The community that was visited, reported that their animals were in good health and that they had access to veterinary services as required. Also, the woreda had employed an animal husbandry officer to support the communities. However, they also indicated that some other communities have difficulties in accessing veterinary services, and that keeping poultry, in particular, is a hopeless task due to disease.
14	Irrigation systems (2 schemes covering 200 ha of land) still in place and functional	2	R	Although this was not directly observed by the consultant, the community reported that an irrigation scheme on the opposite hill had been installed and that it was still functioning, allowing the community to grow more crop varieties. Thanks to the irrigation system, the productivity of the land had significantly increased. The community reported to be interested in expanding the irrigation system.



This **Impact and Sustainability Assessment** of the project **"Building the National Capacity and Knowledge on Climate Change Resilient Actions in Ethiopia"** (2010/O22-456) is one of the 22 case studies that were conducted to feed into the overall **EU GCCA/EU GCCA+ Impact and Sustainability Study**.

This case study report provides a summary list of outputs delivered, a detailed analysis of ex-post impact and sustainability levels as well as additional information on the project's M&E practices, on the available knowledge and communication products, on scaling-up opportunities and on ex-post climate finance mobilised from local public and private sources.

All reports are available on www.gcca.eu/resources

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