Supported GEF-financed project (GEF ID 5147)

GEF FOCAL AREA: CLIMATE CHANGE
EXECUTING AGENCY: MINISTRY OF AGRICULTURE

TERMINAL EVALUATION REPORT

Project: 'Enhancing Resilience of Agricultural Sector in Georgia (ERASIG)'

Terminal evaluation/review information	
TER completion date	June 2021
TER submission date	
Author of TER	Joris Oele, International Consultant for IFAD
TER peer review by (if GEF EO review)	IOE, IFAD

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Acronyms and abbreviations

AMMAR	Agriculture Modernization, Market Access and Resilience (project)
CA	Conservation Agriculture
CCNAP	Climate Change National Adaptation Plan
CENN	Caucasus Environmental NGO Network
CSA	Climate Smart Agriculture
EDPRP	Development and Poverty Reduction Programme of Georgia
EIT	Efficient Irrigation Technologies
ERASIG	Enhancing Resilience of Agricultural Sector in Georgia
EU	European Union
GA	Georgia Amelioration company
GEF	Global Environment Facility
GIZ	(Duetsche) Gesellschaft für Internationale Zusammenarbeit
GOG	Government of Georgia
ICARDA	International Center for Agricultural Research in the Dry Areas
IFAD	International Fund for Agriculture Development
IOE	Independent Office of Evaluation
KfW	Kreditanstalt für Wiederaufbau
LTB	Letter to the Borrower
LR	Landscape Restauration
MEPA	Ministry of Environment and Agriculture
M&E	Monitoring and Evaluation
MoA	Ministry of Agriculture
MTR	Mid-Term Review
NASP	National Agency of State Property
NEN	Near East North Africa (region)
PMU	Project Management Unit
RDA	Rural Development Agency
SADG	Strategy of Agriculture Development of Georgia
SCCF	Special Climate Change Fund
SDGs	Sustainable Development Goals
SECAP	Social, Environmental and Climate Assessment Procedures
SIDA	Swedish International Development Cooperation Agency
SNC	Second National Communication
TE	Terminal Evaluation
TER	Terminal Evaluation Report
TNA	Technology Needs Assessment
TNWB	United States Bankruptcy Court
UN	United Nations
UNDP	United Nations Development Programme
USAID	United States Agency for International Development
VC	Value Chain
UNCCD	United Nations Convention to Combat Desertification
UNEG	United National Evaluation Group
WUA	Water User Organizations
WB	World Bank
WWF	World Wildlife Fund

Currency equivalents

Monetary Unit	=	Georgian Lari (GEL)
USD 1	=	GEL 1.72
EUR 1	=	GEL 2.30

Weights and measures

1 kilogram (kg)	=	2.204 pounds (lb)
1000 kg	=	1 metric tonne (t)
1 metre (m)	=	1.09 yards (yd)
1 square metre (m2)	=	10.76 square feet (ft2)
1 acre (ac)	=	0.405 ha
1 hectare (ha)	=	2.47 acres

Target area GEF project.

Figure 1 Map of project area

* For detailed geo-referenced maps with locations of interventions see Annex J

1. Executive summary

1.1. Project information summary

Table 1 Project information summary table

Project Title:	Enhancing Resilience of Agricultural Sector in Georgia (ERASIG)
GEF Project ID:	5147
IFAD Project ID:	1100001760
Country:	Republic of Georgia
Region:	Near East and North Africa (NEN)
GEF Focal Area:	Climate change adaptation - GEF Special Climate Change Fund (SCCF)
SCCF Objective	Improve water availability, farmland productivity and smallholders' income through investments in climate-resilient farming systems and technologies
Implementing agency	International Fund for Agriculture Development (IFAD)
Executing Agency:	Ministry of Environmental Protection and Agriculture (MEPA) (MoA at design)

Key dates						
GEF approval	IFAD approval	Effectiveness	Mid-term Review	Final evaluation	Completion	Grant closing
13/01/2015	02/02/2015	17/02/2015	09/04/2018	06/2021	31/01/2021	31/07/2021

Budget approved at proposal phase

(Co-) financing	IFAD (mill. US$)		Government (mill. US$)		Beneficiaries (mill. USD)		(Danida) (mill. USD)		GEF (mill. US$)		Total (mill. US$)	
	Orig	Actu	Orig	Actu	Orig	Actu	Orig	Actu	Orig	Actu	Orig	Actu
Grants	0.50	0.16					4.11	4.11	5.30	5.09	9.91	9.36
Loans	13.30	11.58									13.30	11.58
Other			2.46	1.84	5.76	8.60					8.22	10.44
Totals	13.80	11.74	2.46	1.84	5.76	8.60	4.11	4.11	5.30	5.09	31.43	31.38

Budget approved by IFAD (final budget)

(Co-) financing	IFAD (mill. US$)		Government (mill. US$)		Beneficiaries (mill. USD)		(Danida) (mill. USD)		GEF (mill. US$)		Total (mill. US$)	
	Orig	Actu	Orig	Actu	Orig	Actu	Orig	Actu	Orig	Actu	Orig	Actu
Grants	0.50	0.16					4.11	4.11	5.30	5.09	9.91	9.36
Loans	13.30	11.58									13.30	11.58
Other			2.46	1.84	9.76	8.60					12.22	10.44
Totals	13.80	11.74	2.46	1.84	9.76	8.60	4.11	4.11	5.30	5.09	35.43	31.38

1.2. Project description

This GEF project, 'Enhancing Resilience of Agricultural Sector in Georgia (ERASIG)', has been implemented in the Republic of Georgia. IFAD acted as the GEF Agency; and the Georgian Ministry of Agriculture (MoA) was the national executing agency.

Goal: 'Enhance the adaptive capacity of farmers to climate change risks through resilient agriculture systems.'

Objective: 'Improve water availability, farmland productivity and smallholders' income through investments in climate-resilient farming systems and technologies.' The project is responsive to the GEF Focal Area: Climate Change, Special Climate Change Fund (SCCF).

Complementarity: The GEF project was designed to be fully blended with the Agriculture Modernization, Market Access and Resilience (AMMAR) project with the aim to enable expansion of Climate Smart Agriculture (CSA) and Efficient Irrigation Technologies (EIT) at plot level, risk management at landscape level and climate mainstreaming at policy level.

Components:

Table 2 GEF Project components

Components	GEF financing (USD)
1. On-farm efficient irrigation and soil and water conservation for sustainable agriculture production;	3,102,000
2. Landscape restoration to prevent climate-related risks;	1,400,000
3. Enabling environment for climate-risk reduction in agriculture;	548,000
4. Project management.	250,000
Total	5,300,000

Budget: the project was designed to respond to the climate change impacts and implement adaptation priorities of the government for the agriculture sector in Georgia. The GEF project funding covered the additional costs associated with the climate change adaptation needs of the baseline AMMAR project. From the total budget of the baseline AMMAR project (see Table 1 USD 5.3 million was GEF / SCCF funding. At the project completion, 96 percent of the GEF budget was disbursed.

Duration: The planned duration of the project was 4 years starting in January 2015 (GEF fiscal year 2013, under the GEF – 5 period). It was extended with 19 months due to slow start-up and COVID-19 delays.

Beneficiaries: the main beneficiaries of the project were:

- Smallholder farmers, including active poor farmers (changed to commercially active farmers)
- Small- to medium- scale surplus farmers, including agribusiness, cooperatives and service providers (secondary target group)
- Central and municipal level governmental agents, including policy makers, rural planners, etc.
- The financial sector (financial service institutions).

1.3. Evaluation ratings overview

Table 3 Evaluation ratings overview table

Evaluation area	Criteria	Rating[1]
Monitoring & Evaluation (M&E)		
	M&E design at entry	4
	M&E Plan Implementation	3
	Overall Quality of M&E	4
Implementation & Execution		
	Quality of IFAD Implementation/Oversight	4
	Quality of Implementing Partner Execution	5
	Overall quality of Implementation/Execution	5
Assessment of Outcomes		
	Relevance	5
	Effectiveness	5
	Efficiency	4
	Overall Project Outcome Rating	5
Sustainability (sustainability rating is different from above)[2]		
	Financial resources	3
	Socio-political/economic	4
	Institutional framework and governance	4
	Environmental	4
	Overall Likelihood of Sustainability	4
Impact		
	Long-term impact - Contribution to SDG 13: climate action	5
	Long-term impact - Contribution to other relevant SDGs (1,2, 5, 6, 15)	4
	Overall impact	5

1.4. Summary of findings, conclusions and lessons learned

The Terminal Evaluation conducted gave the project an overall rating of ***satisfactory.*** The project overachieved most of its targets. However, it should be noted that this overachievement is also because of the adjustment of targets (less ambitious) during project implementation.

The most notable strengths of the project include:

- Adaptive management – to respond to the initial delays
- Strong country ownership and linkages to national priorities
- Overachievements of most targets (those adjusted during project implementation)
- Innovation:
    - windbreaks, vermicomposting: identification of windbreaks as an effective response to climate change-related erosion and potential for replication and scale-up
    - M & E system with geo-referenced activities)

The most serious shortcomings of the project include:

- Lack of a gender approach/strategy (action plan) and related identification of specific needs (especially climate change adaptation related).
- Lack of clear baseline (inception) against which achievements could be monitored / evaluated with indicators and targets that are clearly additional to the baseline project

The greatest achievements in terms of results include:

- Increase of income: 300% of target

[1] Outcomes, Effectiveness, Efficiency, M&E, I&E Execution, Relevance are rated on a 6-point rating scale: 6 = Highly Satisfactory (HS), 5 = Satisfactory (S), 4 = Moderately Satisfactory (MS), 3 = Moderately Unsatisfactory (MU), 2 = Unsatisfactory (U), 1 = Highly Unsatisfactory (HU). Sustainability is rated on a 4-point scale: 4 = Likely (L), 3 = Moderately Likely (ML), 2 = Moderately Unlikely (MU), 1 = Unlikely (U)

[2] Sustainability is rated on a 4-point rating scale: 4 = Likely (L) (There are little or no risks to sustainability), 3 = Moderately Likely (ML) (There are moderate risks to sustainability), 2 = Moderately Unlikely (MU) (There are significant risks to sustainability), 1 = Unlikely (U) (There are severe risks to sustainability)

- Land brought under climate-resilient practices (riverbank protection and windbreaks): 153% of target
- Policy dialogues on climate change, such as the NAP: 300% of target
- ToT: 218% of target
- Demonstration plots on climate-resilient technologies, such as drip irrigation: 170% of target

The lowest achievements against targets:

- % target beneficiaries with increased income > 20 %: 64% of target
- Grants to agribusinesses: 65% of target
- Gender approach / strategy was not developed, which led to limited women specific benefits as response to specific needs.

Lessons learned

A. Project design
   1. M&E of the GEF project-specific indicators and targets was challenging as the GEF project results framework was blended with the baseline project; thus indicators and targets were not clearly distinguished.
   2. The GEF project indicators were not well-matched with those in the GEF adaptation tracking tool
   3. The GEF-project results framework was not adjusted after changes were made to the baseline project results framework, which resulted in some inconsistencies in M&E and reporting.
   4. Although a risk of possible slow start of the project was identified at the project design phase, but limited action was taken to prevent a delay at the start of the project
   5. There has been limited consideration of women (and youth) specific needs and concerns, especially climate change adaptation-related, at the project design phase of the project - the development and implementation of a gender action plan at the start could have led to increased benefits to women - project supervision/management could have benefitted from gender expert from the design phase
   6. The strategy/mechanism to engage farmer beneficiaries at start of the project turned out to be non-appropriate/weak - as farmers are mostly not organised in Georgia.
   7. There was limited interest from agribusinesses for grants
   8. Access to financing modalities options was limited (only grants/subsidy approach) – there should be a more sustainable solution
   9. Focus was changed from poorest farmers beneficiaries to commercially active farmers to ensure better effectiveness and sustainability of the project

B. Project implementation
   1. From land brought under climate-resilient practices, windbreaks are an effective response to climate change-related erosion and a promising solution for replication/upscaling
   2. Further support may be required to implement and enforce the draft laws on windbreaks and soil conservation effectively
   3. Although locally useful for farmers to restore their land, the river-bank interventions cannot be labelled as proper Landscape Restoration interventions in a wider scale, as they have been implemented with insufficiently integrated evaluation and planning - future project designs should ensure that wider catchment scale approach for river planning and management are in place (e.g., detailed river basin impact studies) to implement this type of intervention.
   4. It is not clear how effective O&M budgets (as part of exit strategy) and trainings are on the longer-term
   5. Demonstration sites supported capacity strengthening of municipal staff and farmers.

Recommendations

Table 4 Recommendations table

Pro	TE recommendation
A	Project design
A.1	Ensure the GEF project results framework (indicators and targets) is additional/distinguishable from the baseline project.
A.2	Ensure alignment of the project indicators with those in the GEF adaptation tracking tool.
A.3	Ensure that any adjustments made to the baseline project (results framework) are also made/integrated into the GEF project (results framework).
A.4	Ensure mitigation measures to possible risk of slow start of the project are effective and followed-up – delays and extension could have been avoided through well prepared start incl. better design of the baseline-project, supervision and involvement of beneficiaries (mechanisms to do so).
A.5	Ensure women (and youth) specific needs and concerns, especially climate change adaptation-related, are fully identified at project design stage and a gender approach and baseline (i.e. action plan) is developed (with support from gender expert).
A.6	Ensure the process of engaging stakeholders is based / building on possibilities/realities on the ground (e.g. to respond to farmers mostly not being organised in Georgia).
A.7	Assess the interest and possible concerns/barriers of potential beneficiaries for accessing financing modalities (e.g. grants to agribusinesses) before the start of the project to ensure appropriate and impactful project activities are proposed at proposed at the design phase. This would also apply for women and youth.
A.8	Consider more diversified and sustainable access to financing options as the approach under this project was limited to grants/subsidy.
A.9.	Assess and identify, before the start of the project, how the highest possible effectiveness and sustainability of the project could be achieved through engagement of different types of beneficiaries, including e.g. the most vulnerable/poorest farmers versus commercially active farmers – or justify selection of beneficiaries with possible less effective and sustainable outcomes.
B	Project implementation
B.1	The investments in the windbreak pilot, combined with its solid contribution to preparing a legal framework for windbreaks, have opened a wide scope for windbreak development country wide. This momentum should be seized as early as possible with the approval of the Law on Windbreaks.
B.2	Identify what actions are needed to implement and enforce the draft laws on windbreaks and soil conservation effectively.
B.3	For river-bank interventions/protection to be effective, ensure that future project designs consider a wider catchment scale approach for river planning and management (e.g. detailed river basin impact studies) to implement this type of intervention.
B.4	Consider how O&M budgets and trainings can be effective on the long-term, as municipal budgets and capacities to sustain interventions may not suffice.
B.5	Demonstration sites are recommended for replication as these can effectively support capacity strengthening of municipal staff and farmers.

2. Introduction

This is the independent Terminal Evaluation (TE) of the International Fund for Agricultural Development/Global Environment Facility (IFAD/GEF) Project "Enhancing Resilience of Agricultural Sector in Georgia (ERASIG)', referred to as the GEF Project in this report. The evaluation was prepared in line with GEF and IFAD evaluation policies.

The TER was prepared by an independent evaluator with the support of the project team and IFAD. An evaluation mission took place between 15 February and the 5th of March 2021. The ToR for the TE mission is inserted in Annex A. The GEF project mission's itinerary is included in Annex B and a list of persons interviewed in Annex C.

2.1. Purpose and objective of the TE

The GEF Monitoring and Evaluation Policy (2010) specifies that each GEF full-sized project will be evaluated at the end of implementation. According to the policy and the GEF evaluation guidelines, the objective of the Terminal Evaluation is to assess the achievement of project results (whether the Project has achieved its goal, objective and outcomes) and to draw lessons that can both improve the sustainability of benefits from this project, and aid in the overall enhancement of IFAD and GEF programming in the future.

2.2. Scope of the Evaluation

Time period being evaluated: 48 months (initial) + 19 month extension, starting from January 2015.

Segments of target beneficiaries included:[3]

- Smallholder farmers, including active poor farmers(changed to commercially active farmers)
- Small- to medium- scale surplus farmers, including agribusiness, cooperatives and service providers (secondary target group)
- Central and municipal level governmental agents, including policy makers, rural planners, etc.
- The financial sector (financial service institutions).

Direct beneficiaries: those actively involved in the prioritized value chains and participating in the project activities (initially 10,000 households)

Components assessed under TE: The GEF project was designed for the GEF/SCCF funds to be utilized to substantially expand the scope of the work with regards to investment in adaptation activities. Therefore the focus on the TE is on the components as designed for the GEF project (see Table 2 and the assessment of additional project benefits (see Table 5) of the GEF project compared to the baseline (AMMAR) project and achievements in relation to the results framework (see Table 8).

Geographic area included: The geographic scope for infrastructure and irrigation activities was retained to Government's priority regions of Khakheti, Samegrelo, Shida Kartli and Skra Kareli at the start of the project.

Assessment scope / key questions to be answered:

- The extent of the achievement of the project results in accordance with the original project results framework; and

[3] *all disaggregated, esp to identify female beneficiaries.

- The achievement of anticipated adaptation benefits and the achievements in terms of capacity strengthening of targeted beneficiaries.

The evaluation also means to serve as an opportunity to critically assess administrative and technical strategies, issues and constraints. The TE sets about attempting to provide answers to the following questions (see also Annex F for the evaluation questions matrix):

- Did the project identify and respond to the real needs in Georgia and other priorities?
- Did it respond to the IFAD/GEF objectives? (= relevance and design)
- Did it do it well? (= efficiency)
- Did it achieve the targeted results? (= effectiveness)
- Will the results survive beyond the life of the project? (= sustainability)

2.3. Methodology

Selected methodological approaches and rationale for selection: The TE was conducted in line with IFAD/GEF policies and guidelines for evaluation. A mixed-methods approach was used, including: (i) a desk review of project documents available at the time of the mission (see overview in Annex D; (ii) online interviews with the project team and relevant stakeholders; and (iii) communication through virtual meetings, email exchanges and phone conversations with project beneficiaries in the different areas where project activities were implemented (see overview list in Annex C)

A quantitative survey was conducted, which comprised of three components: (1) Household Survey, (2) Matching Grants Beneficiary Survey and (3) Training Beneficiary Survey.

The TER was prepared by an independent consultant (Joris Oele) complemented with specialists: an Environmental Expert (Renaud Colmant), a Rural Development Expert (Isabelle Lagaillarde), a Finance Expert (Sengul James), a Procurement Expert (Nino Gogsadze) an Economic Expert (Enrico Mazzoli) and a Gender Expert (Beatrice Gerli) with the collaboration and backup of the IFAD Country Representative (Vrej Jijyan). The Terms of Reference (TORs) for the evaluation mission is presented in Annex A.

2.4. Data Collection and Analysis

Data has been collected through project supervision, implementation and evaluation missions, including a project impact survey. Data collected was used to complete this report, to rate the project according to scales presented in Annex G and to address the questions in the evaluation questions matrix (see Annex E).

The evaluation analysed data through desk review of project documents presented in Annex D, interviews with the project team and surveys of project beneficiaries, mostly remotely. For the impact survey, mixed data collection techniques were applied along with interviews using a structured questionnaire. The main study component was considered to be the quantitative survey for both the target and control groups. The quantitative survey was applied to farming households as well as commercial farms operating either as household holdings or legal entities.

A virtual stakeholder workshop chaired by Mr Giorgi Khanishvili, First Deputy Minister at the Ministry of Environmental Protection and Agriculture, and Mr Vrej Jijyan, IFAD Country Director, was held on 26 February 2021 to highlight the evaluation mission's findings, assessments and recommendations and gather final insights from AMMAR's and ERASIGs stakeholders.

2.5. Ethics

In accordance with the UNEG/IFAD/GEF evaluation policy and ethical guidelines for evaluation, this evaluation is guided by, and has applied, the following principles:

- **Independence.** The Evaluators (both International Consultant and National consultant) are independent and have not been engaged in the Project activities at any point in time, nor were they responsible in the past for the design, implementation or supervision of this project.
- **Impartiality.** The Evaluators strived in their capacities to provide comprehensive and balanced presentation of strengths and weaknesses of the UNDP/GEF project. The evaluation process has been impartial in all stages and taken into account all the views received from every stakeholder interviewed or contacted.
- **Transparency**. The Evaluators communicated in as open a manner as possible the purpose of the terminal evaluation, the criteria applied and the intended use of the findings. This terminal evaluation report provides transparent information on its sources, methodologies and approaches.
- **Disclosure.** This TE report serves as a mechanism through which the findings and lessons identified in the terminal evaluation are disseminated to policymakers, operational staff, beneficiaries, the general public and other stakeholders in the Republic of Liberia.
- **Ethical.** The Evaluators have respected the right of institutions and individuals to provide information in confidence; the sources of specific information and opinions in this report are not disclosed except where necessary and then only after confirmation with the consultee.
- **Competencies and Capacities**. The credentials of the Evaluators in terms of their expertise, seniority and experience as required by the terms of reference are provided in Annex 1 Section 13.
- **Credibility.** This terminal evaluation has been based on data and observations which are considered reliable and dependable with reference to the quality of instruments and procedures and analysis used by the evaluators to collect and interpret information.
- **Utility.** The Evaluators endeavoured to be as well-informed as possible; and this ensuing TE report is considered as relevant, timely and as concise to the extent possible. In an attempt to be of maximum benefit to key stakeholders, the TE report presents in a complete and balanced way the evidence, findings and issues, conclusions, recommendations and lessons learnt.

These are within the overall IFAD and GEF-related objectives of:

(i) Promoting accountability and global environmental benefits; and
(ii) Promoting learning, feedback and knowledge sharing on results and lessons learned among the GEF and its partners.

2.6. Limitations of the evaluation

The COVID-19 outbreak and related restrictions have affected the effectiveness of field work. Georgia has been under an official quarantine regime since November 28, 2020, which has envisaged several restrictions including transportation among regions, limited time spent in the field, restrictions on inter-municipal travel, etc.

To complete the TE in a timely manner, remote data collection capabilities were increased, communication made through virtual meetings, email exchanges and phone conversations, and also allowing for the implementation of quantitative and qualitative surveys. The data collection teams

that still worked in the field had to follow restrictions issued by the relevant agencies and in line with ethical and environmental standards.

Related to above, it was difficult to establish face-to-face interactions between the data collectors and respondents, resulting in a high non-response rate to the Impact Survey data collection. It should be noted that an increased non-response rate is a common challenge for all other assignments' data collection taking place since spring 2020. Specifically, non-response has increased to 45%-48%, compared to the regular 25%-30%.

Besides that, the baseline indicators and targets originate from the project document (especially the results framework), as these have not been updated through the project inception phase.

2.7. Structure of the TE report

The TE is made up of six parts (see table of contents) which reflect IFAD/GEF generic guidance for evaluation and is according to the standards established by the United National Evaluation Group (UNEG).

First, the executive summary captures the essence of the information contained in the report. After that part two provides the introduction and the background to the assignment, including its purpose and methods used, etc.

The third part incudes the project description and development context, which looks at the problem that the GEF project sought address, development objectives of the project, main stakeholders, expected results, etc.

Part four contains the findings of the evaluation in terms of the project design/formulation, its implementation, administration and management, its achievements, results and impacts, and the potential for sustainability of the products and services that it produced.

The fifth part contains the main findings, conclusions, recommendations and lessons learned.

Part six comprises of annexes.

3. Project Description

3.1. Project overview

Project start and duration: The GEF project concept note project proposal was first received by the GEF in September 2012. The concept note was approved in November 2012. The full project proposal was approved for implementation in January 2015. The project expected implementation period was four years but was extended by 19 months. The GEF project implementation was completed 31 January 2021 and the grant closing is expected 31/07/2021.

Total resources: The GEF SCCF total funding was USD 5.3 million of which 96 percent has been disbursed at GEF project completion.

Main stakeholders and key partners: IFAD acted as the GEF Agency and the Georgian Ministry of Environment Protection and Agriculture (MEPA) was the national executing agency. The MEPA was the lead executing agency through the Rural and Agriculture Development Fund (RADF) as the fully blended AMMAR/ERASIG project' implementing agency. The RADF was responsible for overall coordination and management of the project, including management and fiduciary aspects.

Benefits: The GEF project was designed to be mainly investment-oriented (through grants), including additional investment in natural disaster affected irrigation and drainage systems and degraded land improvement and leveraging on-going investments in building the capacity of the MEPA's concerned departments, and in the mobilization and capacity building of local authorities, private and public extension organizations, NGO, research organizations, water users organizations, farmers' associations and cooperatives, and individual farmers. The project focused on the implementation of tangible, climate-resilient water and soil conservation/management measures with the purpose to enhance the socio-economic benefits of the target beneficiaries. For an overview of project benefits as anticipated at the design stage of the project see Table 5

The **project's target group.** The project was designed to target poor food insecure rural women and men living in the participating natural disaster prone communities (estimated 10,000 supported households at project design, including specific sub-groups: youth, the unemployed, and the economically active poor farmers, changed to commercially active farmers). Besides that, the central and municipal level governmental agents, including policy makers, rural planners, etc. were targeted for capacity strengthening activities, as well as NGO's, water user organisations, farmers associations and individual farmers. During project implementation, the focus shifted from the poorest segment of farmers to more commercially active farmers, to ensure more impact on investment and better changes for sustainability.

Target area: The project was designed to be nationwide, with the actual geographical focus determined by its climate change vulnerability and the supported crop value chains. Priority was given to the poorest regions with emphasis on the areas where there is agriculture and irrigation development potentials. The GEF project included areas that needed to develop a recovery framework after the heavy damages caused by the devastating hailstorms, combined with strong winds and heavy rainfall, that hit Eastern Georgia in July 2012; thus proposed project activities initially targeted the areas of Kakheti and Samtskhe Javakheti regions (changed to Adjara, Kakheti, Shida Kartli and Samegrelo pilot areas at the start of the project), while the ground was set to expand the work in the regions of Mtskheta-Mtianeti, Shida Kartli and Kvemo Kartli. Besides that, the geographic scope for infrastructure and irrigation activities was retained to Government's priority regions of Khakheti, Samegrelo, Shida Kartli and Skra Kareli at the start of the project.

3.2. Context and problems that the project sought to address

Context: From 2012 the Government of Georgia displayed a radical policy shift and renewed interest in the revitalization of the agricultural sector in general, and of irrigated agriculture and value chain development in particular. This was driven by the recognition that farmers could not sustain rural families under the critical constraints prevailing along most value chains (VCs). Given the importance of the agriculture sector in the Georgian economy and its high vulnerability to climate change, the national goals of economic growth and poverty reduction can only be met if a climate-resilient, modern and competitive agricultural sector is in place. However, both subsistence and surplus farmers are highly vulnerable to the impact generated by climate change. Climate change is acting as a "multiplier" of existing socio-economic and environmental barriers to sustainable development.

Overall problem: The agriculture sector in Georgia is highly vulnerable to climate change (CC) and climate variability, leading to serious problems of production loss and threats to food security under a business as usual scenario. Extreme weather events in 2012 - floods, windstorms, and drought - evidenced a marked land degradation trend throughout the country and a shifting aridification trend that is poised to heavily affect the already semi-arid Eastern portions of Georgia by the end of the century. Smallholder farmers in the country are highly sensitive to climate change due to their heavy reliance on subsistence agriculture. The limited access to financial resources, technologies, and adaptation knowledge entail low adaptive capacity and higher vulnerability to the extreme events, unpredictable climate variations, and environmental degradation caused by the combined effect of anthropogenic and climate change causes.

Specific problems: These climate change impacts lead to soil erosion and loss of potential agriculture territory, loss/degradation of assets, reduced soil fertility and reduced quality and biodiversity of crops and livestock, which in turn lead to a loss of agriculture production and related increase of poverty, land abandonment and loss of cultural identify. Farmers have limited capacities to respond to these issues.

Alignment with priorities

- **Consistency of the GEF project with Government's strategies and priorities:** The GEF project was designed to align with the priorities of the Government of Georgia, including the 2003-2015 Economic Development and Poverty Reduction Programme of Georgia (EDPRP) and the Strategy of Agriculture Development of Georgia for 2015-2020 (SADG) issued by the Ministry of Agriculture, which supported the development of integrated multi-sectoral initiatives in the areas of food security, climate change and poverty reduction. Under SADG, the Ministry of Agriculture intended to revitalize irrigated agriculture through the rehabilitation, reconstruction and modernization of irrigation and drainage systems, and the support for efficient irrigation systems (e.g. drip irrigation, pivots, etc.) and good agricultural practices (e.g. conservation agriculture principles through permanent soil cover, crop rotations, effective use of water and fertilizers, etc.) to ensure sustainable production, promote environmental sustainability, improve soil quality and reduce land degradation. The potential for organic production will be considered, including the set-up of an accreditation system in line with international standards.

  The GEF project climate change adaptation approach and proposed activities were designed to match the specific CC adaptation priority measures and technologies included in the framework of the Second National Communications to the UNFCCC (SNC), and in the Technology Needs Assessment and Technology Action Plans for CC Adaptation (TNA).

- **Consistency of the GEF project with GEF SCCF priorities**: The GEF project was designed to be responsive to the Climate Change Strategy for GEF-5 in terms of the CAA 1 Outcome 1.2, CCA 2 Outcome 2.1 and Outcome 2.3 and CCA 3 Outcome 3.1: Outcome 3.2

- **Consistency with IFAD priorities:** Environmental threats such as climate change are inseparable from IFAD's mission of helping poor smallholders. Climate change is multiplying the existing risks of IFAD's target group and IFAD is keen of turning these into opportunities. IFAD, through the implementation of its climate change strategy, is maximizing its impact on rural poverty in a changing climate.

- **Consistency with SDGs:** The project was designed to contribute to five Strategic Development Goals (SDGs), namely: SDG1, SDG5, SDG6 and SDG13.

Baseline project and coordination with other initiatives: the GEF project was designed to be co-financed through the Agriculture Modernization, Market Access, and Resilience Project (AMMAR) for the implementation of baseline activities. The proposed SCCF funding was incremental to build the adaptive capacity as well as reduce vulnerability of the rural populations to the predicted impacts of climate change in Georgia.

At the GEF project design stage, it was proposed to establish synergies with relevant initiatives from International Cooperation Agencies, including the largest donors contributing to CC adaptation in agriculture in Georgia (UNDP, USAID, GIZ and the EU). The project proposed to seek collaboration with the EU country office to support the creation of small farmers' organizations, including technical assistance and provision of inputs, equipment and/or small infrastructure to increase production and improve access to markets. The project proposed to collaborate with UNDP and USAID in strengthening the capacity of public and private providers of extension and mechanization services and in facilitating farmer's access to extension and research. The project was also designed to seek collaborate with and build upon the work of UNDP, SIDA, the Georgian Employers Association and USAID-supported Gender Mobilization Groups to inform poor rural women about the project opportunities to improve women's decision-making and employment opportunities in agriculture.

The GEF project was designed to draw on lessons from the ICARDA Programme for Central Asia and the Caucasus with research experiences on improved production systems, new promising varieties of cereals and legumes resistant to drought, salt soils and diseases, promising livestock management, new water saving and resource conserving agronomic practices, etc. The project also aimed to draw on lessons learned from the GIZ supported projects on conservation agriculture development and protective vegetation shelterbelts rehabilitation in Kakheti region. The project was designed to build on the GIZ successful results on increasing production quality standards and reducing trade barriers, in collaboration with the organic association Elkana (e.g. organic agriculture production and marketing of products such as wine, through participation in international organic fairs).

The Project was also designed taking into account the findings, conclusions and recommendations of relevant reports, such as the WB "Reducing the Vulnerability of Georgia's Agriculture Systems to Climate Change: Impact Assessment and Adaptation Options" (2013), the TNWB's "Disaster Risk management and Climate Change Adaptation in Europe and Central Asia" (2010), KfW's "Adaptation to Climate Change in the Kura-Aras River Basin" (2010), WWF Norway "Climate Change in Southern Caucasus: Impact on Nature, People and Society" (2008), other UN and relevant international donors' discussion and working papers (2008-2012).

Gender dimension: The GEF project was designed to follow IFAD's "Gender Equality and Women's Empowerment policy" to increase its gender impact. It was expected that poor rural women to

participate in annual Stakeholder Review and Planning Workshops. A benchmark of 30 percent minimum representation of women across project activities was set at the project start. Annual Work Plans and Budgets were expected to be gender-sensitive as well as employment patterns and levels of remuneration in project-supported investments and selection of project infrastructure. Project monitoring and reporting data will be disaggregated by gender.

The GEF project was further designed to support gender equality through economic empowerment, equal voice and decision-making, and to reduce workloads through direct targeting mechanisms and mass media communication that will allow women to voice their priorities and to offer them equal decision making opportunities. The project was designed for women and unemployed youth be the primary beneficiaries of the GEF project because of their higher climate change vulnerability. The project was designed to strengthen women's involvement in capacity development activities – i.e. through the identification of women farmer leaders to support demonstration trials in their farm plots; the definition of gender criteria for the selection of participants to training activities and women's access to climate resilient investments and post-harvesting and marketing support. The project was designed for the promotion of labour saving conservation agriculture technologies to help reduce women's workload and allow them to engage in new income generating activities.

Cost-effectiveness: The GEF project was designed to be mainly investment-oriented with a view to maximize the impact per GEF dollar. Project management and M&E costs were maintained at the lowest possible level. Investments in an area/sector that is significantly affected by climate change exacerbated risks, such as drought, floods and land degradation, through well targeted investments in innovative techniques to help farmers swift from conventional agriculture to efficient irrigation and CA and restore protective shelterbelts and climate-proof infrastructures was supposed to lead to increased cost-effectiveness. Reduced cost in relation to smallholders' entrepreneurship development, access to rural finance, and technical assistance and capacity development for current and new value chains (due to the blended nature of the operation) was supposed to further reduce the share of "soft activities", leading to stronger investment and higher return.

Sustainability: Long-term sustainability was sought through a broad capacity building programme designed to create a critical mass of efficient practitioners at the basin and national level, and among all Value Chain actors – from institutional to grassroots. The training of trainers was a key component of this programme. Another important element for sustainability and replicability was the achievement of policy and legislation frameworks that are conducive to the replication and dissemination of new experiences and achievements. The project was designed to engage in a policy dialogue, and work closely with all concerned decision makers and branches of the administration in order to reach the desired policy targets. Climate-proof infrastructures and landscape restoration was designed to contribute to reduce climate change-related risks and improve environmental services needed for sustainable agriculture production. Furthermore, the economic use of non-crop vegetation – wood, wild fruits, medicinal/aromatic plants, honey – was supposed to increase economic opportunities for smallholders, and especially for women.

At the design phase, smallholders and farmers' organizations (e.g. water users organizations) were the main targets for the awareness raising and the capacity building programme. The project was designed for these actors to also be the main beneficiaries of the components on production/processing improvement and the provision of new technologies.

Potential for replication and scaling up: The project was designed so that replicability is ensured through the dissemination of lessons learnt in the field demonstration trials, and the locally adapted Efficient Irrigation Technologies and Conservation Agriculture management systems adopted by the beneficiaries. The provision of adequate equipment that is adapted to the local context will also

contribute to replicability. Besides that, the project was designed to test new approaches and technologies in the Georgian agriculture context that can eventually be up-scaled and replicated elsewhere in the country and for the suggested pilot developments under the GEF project to become models for replication and scaling-up across regions in Georgia.

Main changes during project implementation:

- **Change of name ministry:** Ministry of Agriculture was changed to Ministry of Environmental protection and agriculture
- **Change time-frame:** 48 months extended with 19 months to allow implementation of Danida-related activities and extension of grants under AMMAR project
- **Change of costs/budget:** co-finance budget was increased, mostly from beneficiary contributions (USD 5.7 million to USD 8.6 million), while contribution from the government was slightly decreased (from USD 2.4 million to USD 1.8 million).
- **Change target areas:** changed from Kakheti and Samtskhe Javakheti regions to Adjara, Kakheti, Shida Kartli and Samegrelo pilot areas. For infrastructure and irrigation-related activities, the geographic scope was retained to Government's priority regions of Khakheti, Samegrelo, Shida Kartli and Skra Kareli at the start of the project.
- **Added alignment with GEF priority outcomes 2.2.**
- **Revision logframe AMMAR project:** the AMMAR logframe was revised after the 2017 MTR to better reflect the output distribution along its outcomes, adding indicators for policies, access to financial services and the DANIDA grant but also reducing some targets. The end target for women outreach was raised from 30% to 52%.
- **Change of main target group:** from poor farmers to commercially active farmers.

3.3. Strategy to address to identified problems

The GEF project was designed to respond to the climate change impacts that lead to soil erosion and loss of potential agriculture territory, loss/degradation of assets, reduced soil fertility and reduced quality and biodiversity of crops and livestock, which in turn lead to a loss of agriculture production and related increase of poverty, land abandonment and loss of cultural identify.

The project was designed to utilizing the GEF/SCCF funds to expand the scope of the AMMAR baseline project with investment in adaptation activities. The expected adaptation benefits of the proposed GEF project activities are presented below.

Table 5 Anticipated adaptation benefits of the proposed GEF project activities

Components	AMMAR baseline project	Anticipated adaptation benefits of GEF activities
1. On-farm efficient irrigation, and soil and water conservation for sustainable agriculture production	• AMMAR, will support up to six priority value chains and address critical constraints along the value chains, for example in marketing, processing, storage, post-harvest, primary production or the provision of key services to producers and agri-businesses. • The tactic objective is to increase the aggregate value created within each value chains as the basis for increased profits for farmers and agri-businesses alike and to thereby create the incentives for wider	• The support to small farmers for climate-proof efficient irrigation, CA/OA systems and technologies, and better adapted crop varieties, shall increase soil water content and reduce 30-80% of water requirements for crops in the converted farmlands. Soil organic matter, soil texture and soil fertility shall significantly improve leading to higher and more stable crop yields under climate variability in drought affected years. • Expected up to 50% yield increases, and higher quality goods with increased market sales. • Soil erosion shall decrease between 60-90% in farmland under CA and restored with shelterbelts and grass cover. • Potential salinization problems will be prevented through adequate drip and/or sprinkler irrigation equipment and scheduling for suitable crops. • Water quality shall improve in farmland under CA due to 20-50% lower use of fertilizers and pesticides.

	replication and "crowding-in".	• EIT and CA technology successfully tested and disseminated over 4,750 ha. • Reduction in machinery, fuel and labour requirements for CA will increase profits and available time, mainly for poor-asset women and youth, to diversify income opportunities through multipurpose shelterbelts producing MAP, wild fruits, and honey. • Reduced emissions due to 60-70% lower fuel use, 20-50% lower fertilizer and pesticides use, 0.2-0.7 t/ha/y sequestered carbon and no CO2 release as a result of no burning of residues
2. Landscape restoration to prevent climate-related risks	• Rehabilitation of irrigation schemes to improve water availability, and value chain infrastructure to improve quality and marketing opportunities. The baseline will improve farmers' capacity to create workable WUOs for a well- organized use of irrigation. • Irrigation development could be badly affected by wind soil erosion, canal siltation, higher evapotranspiration, and production losses due to CC- risks. Moreover, subsidies and credits supporting maladapted technologies might exacerbate development barriers.	• Irrigation infrastructure will be designed and restored using CC vulnerability assessments and adaptation measures. • Quantification of the benefits deriving from the improvement of value chain-related infrastructure, such as cold storage facilities and certified testing facilities, suggested that it will result in about USD 700,000 of incremental annual benefits in total. Approximately 1,060 smallholder farms and households will be benefiting from the improvement of the value chain-related infrastructures with increase of their annual income from 1.4% to 5% in 20-year perspective. • The SCCF will support the use of "soft" biotechnologies and ecological restoration measures to prevent environmental risks, improve environmental services, and generate complementary income opportunities from wood and non-wood forest products and pastures (e.g. increase of household benefits from beekeeping by at least USD 1,206 per year with the project). • "Soft" biotechnologies help restore water flow regime with beneficial hydro-mechanical effects and protection against soil erosion. • The restoration of vegetation shelterbelts will help reduce about 20% of soil evaporative losses in summer, reduce evaporation from irrigation dams and channels up to 30%, increase at least 25% of yields, and have large wind erosion control benefits.
3. Enabling environment for climate-risk reduction in agriculture	• The baseline will help create an enabling policy environment for value chain development. • Partnerships among value chain actors will be promoted and training will be provided to improve practices – production, processing, marketing – organizational frameworks and VC linkages. • The AMMAR project will complement the Concessional Loan Program initiated by the GoG, as well as will ensure the link between value chain development and credit schemes in the project target areas.	• Service providers will be trained on the adaptation benefits of climate-resilient EIT, CA/OA, and landscape restoration measures and technologies. • On-farm demonstrations will allow small farmers and farmers' organizations to exchange know-how, learn and apply climate-resilient EIT, CA/OA and LR measures and technologies, as well as collaborative frameworks (WUO, Farmers' organizations and cooperatives). • Target farmers' organizations will be trained on and have applied post-harvesting and marketing skills. • Guidelines to mainstream CC adaptation in selected policy frameworks and regulations developed and disseminated to policy-makers. • Information materials featuring lessons learned prepared and disseminated widely to practitioners and society in general.
4. Project Management	• The baseline will cover the establishment of the RADF/AMMAR PIU that will be responsible for the overall programme coordination and implementation. The main M&E functions will be	• The SCCF will integrate CC expertise in the programme management and monitoring. • The SCCF will cover the additional costs for a CC Adaptation Specialist to ensure the overall implementation of the SCCF activities and effective integration in the baseline. Experts and service providers will be hired to provide technical support and guidance for the implementation of

	undertaken through the baseline M&E system.	the different project components, and help integrate CC issues in the AMMAR baseline interventions and M&E system.

3.4. Theory of change

Table 6 Theory of change overview table (prepared for TER). Linkages are described in the headlines and below

Problem to be addressed through the project (CC-related)	Specific problems to be addressed through the project (capacity causes)	Needs to response to the problem (Goal and objective)	Alignment with GEF Focal Area Objectives	Actions to respond to the problems (Expected Outputs)	Result of response actions to the problems (Desired Outcomes)	Intended Long-term adaptation impact and benefits
Climate change is adversely impacting the agriculture sector in Georgia, through increasing: - Evapotransportation (water balance problem) - Droughts and fires - Winds and desertification / soil erosion - Torrential rainfall and floods Leading to: - Loss / degradation physical assets / - Loss soil fertility - Loss quality crops and livestock - Loss of agro-biodiversity - Loss potential agriculture territory	- Limited adaptive capacities, including limited access to -financial resources, -technologies -adaptation knowledge of smallholder farmers to respond to cc-related problems	Enhance the adaptive capacity of farmers (and other key stakeholders + gender consideration) to climate change risks through resilient agriculture systems Improve water availability, farmland productivity and smallholders' income - through investments in climate-resilient farming systems and VC technologies. Respond to risks / barriers: participatory approach, knowledge sharing and capacity strengthening	CCA-1	1.2.1. At least 4,750 ha in the project areas are managed using efficient irrigation technologies (EIT) and conservation agriculture (CA) systems that enhance yield and water use efficiency for selected crop value chains.	1.1.On-farm water efficiency and farming practices in irrigation and rainfed crop production systems are improved	Reduced: - Loss potential agriculture territory - Loss / degradation physical assets / - Loss soil fertility - Loss quality crops and livestock - Loss of agro-biodiversity And consequently reduced: - Loss agriculture production - Poverty - Land abandonment - Loss of cultural identify
			CCA-2	2.1.1. 8 Landscape Restoration (LR) plans incorporating climate-resilient infrastructures and vegetation restoration interventions in erosion-risk vulnerable areas are developed and implemented.	2.1.Landscape restoration plans developed and implemented to prevent climate-related risks (soil erosion, siltation and flooding)/	
			CCA-3	3.1.1. A policy dialogue is triggered to mainstream CC risk reduction into water and soil conservation in agriculture	3.1.Concerned institutions are empowered through capacity building to develop a more conducive policy environment for climate-resilient agriculture and water and soil conservation	
				3.2.2. At least 1000 farmers participate in 10 on-farm demonstrations where new irrigation and CA production systems and technologies are tested and validated		
Assumptions						
- There is a clear link between the cc trends and impacts - Agriculture is an important sector in Georgia (economic, employment) - Smallholder farmers are especially	Response options are limited due to: - Limited availability affordable and adequate adaptation technologies - Limited awareness and knowledge of	- A mix of technical solutions and capacity strengthening activities are required		- irrigation technologies (EIT) and conservation agriculture (CA) systems are effective tools to adapt to climate change impacts on agriculture sector	- Water efficiency will improve through used technology - Landscape restoration plans support reducing identified cc risks - Capacity development will lead to a more conducive policy environment for climate-resilient agriculture	- Proposed actions will support the achievement of mentioned long-term impacts

vulnerable as they depend on the agriculture sector for their income.	adaptation responses and ownership of target populations - Lack knowledge / skills of adaptation technology				and water and soil conservation	
Potential risks (and barriers to overcome)						
- Non-accurate cc data and VA info	- Limited involvement target population in capacity strengthening activities	- Insufficient application of targeting procedures, with special attention to gender issues.		- On-the-ground implementation slowed by bureaucratic constraints - Insufficient and inadequate staffing for backstopping	- Low capacity of local service providers and partners to perform high quality services - Weak political will to streamline climate- resilient agriculture technologies, consolidate the institutional framework and enforce laws. - Governance issues, including "Elite capture" with the "plausible recurrent risk" of deviation and capture of the benefits accrued from the project by the "better off".	- Land tenure issues have a negative impact on project implementation and on sustainability of achievements.

Linkages within the theory of change

Problem: Georgia is adversely impacted by adverse climate change including increasing:
- Evapotransportation (water balance problem)
- Droughts and fires
- Winds and desertification / soil erosion
- Torrential rainfall and floods

These climate change trends are leading to soil erosion and loss of potential agriculture territory, loss/degradation of assets, reduced soil fertility and reduced quality and biodiversity of crops and livestock, which in turn lead to a loss of agriculture production and related increase of poverty, land abandonment and loss of cultural identify. Famers are most vulnerable as they rely on the agriculture sector being impacted by above. However, this groups has limited capacity to respond/adapt.

The project was designed to respond to the above mentioned climate change impact and adaptation priorities of the government for the agriculture sector in Georgia through the following goal:

Goal: 'Enhancing the adaptive capacity of farmers to climate risks through resilient agricultural systems' (and in that way reduce poverty, land abandonment and loss of cultural identify) by reducing erosion and related agriculture losses and degradation of quality of products).

The project aimed to demonstrate the adaptation potential of climate-resilient crop production systems and technologies – especially Efficient Irrigation Technologies and Conservation Agriculture – combined with the rehabilitation and climate-proofing of irrigation schemes and Value Chain infrastructures - including. Improved storage and processing facilities, and greenhouses - in selected crop Value Chains. The implementation of Landscape Restoration (LR) measures was aimed to mitigate the impact of climate-related risks, such as soil erosion and floods, damaging both farmland and infrastructures.

The project aimed to support multi-stakeholder processes involving all Value Chain actors, knowledge generation and farmers' investments leading to a more resilient agriculture production. The project also aimed to support the Ministry of Environment and Agriculture to mainstream climate change adaptation into agriculture policies and regulations, to favour the sustainability and upscaling of the intervention supported by the project.

Related to above the project **Objective** was to**:** Improve water availability, farmland productivity, and smallholders' income through investments in climate-resilient farming systems and value chain technologies. This was pursued through the following components:

Components:
1. On-farm efficient irrigation and soil and water conservation for sustainable agriculture production
2. Landscape Restoration to prevent climate-related risks
3. Enabling environment for climate-risk reduction in agriculture
4. Project management

In relation to the project objective and components, the following outcomes were foreseen:

Outcomes

1.1. On-farm water efficiency and farming practices in irrigation and rainfed crop production systems are improved

2.1. Landscape restoration plans developed and implemented to prevent climate-related risks (soil erosion, siltation and flooding
3.1. Concerned institutions are empowered through capacity building to develop a more conducive policy environment for climate-resilient agriculture and water and soil conservation

These outcomes were pursued through the following outputs:

Outputs

1.2.1. At least 4,750 ha in the project areas are managed using Efficient Irrigation Technologies and Conservation Agriculture systems that enhance yield and water use efficiency for selected crop value chains.

2.1.1. 8 (initially 150) Landscape Restoration (LR) plans incorporating climate- resilient infrastructures and vegetation restoration interventions in erosion-risk vulnerable areas are developed and implemented.

3.1.1. A policy dialogue is triggered to mainstream CC risk reduction into water and soil conservation in agriculture

3.2.2 At least 1000 (initially 3,000) farmers participate in 10 (initially 30) on-farm demonstrations where new irrigation and CA production systems and technologies are tested and validated

Risks and assumptions

General project risks were identified and mitigation measures proposed as per below table. Assumptions for project implementation were included in the project results framework (see Table 8. Some additional assumptions and risks have been included in the theory of change table (see Table 6).

Table 7 Initial risks identified

Risks	Risk rating*	Risk mitigation measure
On-the-ground implementation slowed by bureaucratic constraints	M	The project will adopt a participatory approach with sufficient institutional strengthening. The fact that AMMAR and ERASIG will be fully embedded within the MoA/RADF and that the projects will support the institutional strengthening of the concerned ministerial departments, such as UASCG, will ensure adequate remedial measures to minimize this risk.
Insufficient and inadequate staffing for backstopping	L	The project will engage in a comprehensive training and awareness raising program targeting all concerned actors (government institutions, agribusinesses and cooperatives, service providers, financial institutions, research/academic institutions, NGO and individual farmers and farmers' associations), to ensure that its approach and objectives are fully understood and integrated. The SCCF funding will empower all stakeholders to deal with climate change adaptation.
Loss of institutional memory	M	The project will ensure that all achievements are well documented (soft and hard copies of all documents will be kept). Information on the project will be disseminated to practitioners. The records of the project's achievements will be publicised at national / international meetings and on websites.
Land tenure issues have a negative impact on project implementation and on sustainability of achievements.	M	The project will build on the MoA policy reform and RADF interventions on land tenure and consolidation issues.
Insufficient application of targeting procedures, with special attention to gender issues.	M	Targeting will be aligned with IFAD's policy and approach in Georgia. Effective monitoring and evaluation procedures will be established to ensure that targeting is adequate. Gender issues are already well embedded in IFAD's country programme. The project will strive to involve the maximum number of women beneficiaries, and it will pay special attention to the creation of new jobs for women through complementary, off-farm activities.

Low capacity of local service providers and partners to perform high quality services for the implementation of the specific outcomes (i.e. CA and landscape restoration measures).	L	The choice of service providers will be subject to a rigorous selection process to ensure that the best providers and partners are engaged. The project will make adequate allocations for technical assistance (national and International) to ensure that all technical adaptation aspects are covered. IFAD will enhance the capacity of national service provides through the ToT programme. The project will stipulate performance-based contracts with sub-contracts on a yearly basis in order to monitor compliance with the agreed work plan.
The lack of access to financial services and the poor functioning of local markets for crop products discourage innovation and technological improvement. Lack of funding to operate and maintain public rural infrastructure	M	Increased availability of financial means for smallholder farmers is being experienced in the baseline and in the governmental policy reform that removes some of the main bottlenecks hampering access to credits. Increased efficiency of irrigation and CA minimization of the inter-annual variation of yields might open new market opportunities, especially through exports. The improvement in the annual yields and of local irrigation infrastructures will also increase market opportunities. Partnerships with financial institutions will facilitate farmer's access to credit and other financial services to invest in climate-resilient agriculture technologies
Weak political will to streamline climate- resilient agriculture technologies, consolidate the institutional framework and enforce laws.	L	MOA's policy reforms demonstrate commitment to support sustainable agriculture, mitigate CC-related risks, and improve the capacity of farmers to produce high quality crops. MENR is very active in CC adaptation and has developed and implemented, in close collaboration with other governmental and non-governmental organizations, agriculture adaptation measures.
Governance issues, including "Elite capture" with the "plausible recurrent risk" of deviation and capture of the benefits accrued from the project by the "better off".	L	Based on IFAD's achievements in other countries, the project will support lead farmers, agribusinesses, cooperatives and service centres to become key hubs around which neighbouring smallholder farmers can learn and hire services, with subsequent boosting of modern agriculture economic activities and wealth creation in the poor rural areas. Such benefits have a multiplying effect and will facilitate the increase in number of farmers' organizations applying sustainable agriculture practices and facilitating knowhow spreading and services provision to a large number of smallholder farmers.
Overall risk ranking	M	

** Risk rating – H (high risk), S (Substantial risk), M (Moderate risk), and L (low risk). Risks refer to the possibility that assumptions, defined in the logical framework may not hold*

3.5. Expected project results and indicators

An overview of the initially expected project results and indicators is included in below table. Additional data related to the GEF adaptation tracking tool is provided in Annex G and additional data related to progress regarding the results framework is provided in Annex H.

Table 8 Project results framework (with changes made during project)

Output	Key indicators / targets	Assumptions
Goal: Enhancing the adaptive capacity of farmers to climate risks through resilient agricultural systems.	- Trends in irrigation of resilience of agriculture systems - 10,000 supported households increase their asset index by at least 10 %	- Political and economic stability in the country - Macro-economic conditions remain stable or improve to promote investment - Commitment of all concerned actors
Objective: Improve water availability, farmland productivity, and smallholders' income through investments in climate-	- Increase of >20% of real net household farm income for at least 80% of the 10,000 supported households. - ~~More than 20% increase in total value (relative to reference market price) of surplus agriculture production of targeted~~	- Concerned Ministries, local institutions, and Value Chain actors are strongly committed to Project objectives

resilient farming systems and Value Chain technologies.	~~VCs sold by participating producers, traders and agribusinesses (disaggregated by gender and age).~~ - Climate-resilient agriculture production practices are adopted by at least 50% of trained smallholder farmers (disaggregated by gender and age).	- Agriculture policies and programmes and rural finance allow to operate efficiently - Appropriate technology and means available in a timely fashion - Local capacity can be built adequately
Component 1. On-farm efficient irrigation and soil and water conservation for sustainable agriculture production Total Budget: USD 3,102,000		
Outcome 1.1: On-farm water efficiency and farming practices in irrigation and rainfed crop production systems are improved / Contributes to CCA-1		
1.2.1. At least 4,750 ha in the project areas are managed using efficient irrigation technologies (EIT) and conservation agriculture (CA) systems that enhance yield and water use efficiency for selected crop value chains.	- At least 4,750 ha of land has improved - on-farm soil and water conditions through climate-resilient EIT and/or CA. - 1000 ~~At least 3,000~~ farmers report diversification of farming systems with higher economic and environmental benefits from the deployment of EIT and/or CA (disaggregated by gender). - 200 ~~Up to 1,000 small~~ grants made to farmers and at least 20 ~~30~~ grants made to agribusinesses and processors in target value chains	- Local farmers and other key actors are willing to become involved - The project can secure the required technical capacity - Suitable irrigation and CA equipment, crop varieties and inputs are available in the country
Component 2. Landscape Restoration to prevent climate-related risks Total Budget: USD 1,400,000		
Outcome 2.1: Landscape restoration plans developed and implemented to prevent climate-related risks (soil erosion, siltation and flooding)/ Contributes to CCA-1		
2.1.1. 150 Landscape restoration (LR) plans incorporating climate-resilient infrastructures and vegetation restoration interventions in erosion-risk vulnerable areas are developed and implemented.	- At least 4,750 ha receiving reliable irrigation water supply from climate-proof rehabilitated and properly maintained irrigation schemes - 8 ~~Up to 150~~ Landscape restoration plans implemented	- All concerned local actors are willing to participate - Planning is carried out effectively and timely
Component 3. Enabling environment for climate-risk reduction in agriculture Total Budget: USD 548,000		
Outcome 3.1: Concerned institutions are empowered through capacity building to develop a more conducive policy environment for climate-resilient agriculture and water and soil conservation/ Contributes to CCA-2		
3.1.1. A policy dialogue is triggered to mainstream CC risk reduction into water and soil conservation in agriculture	- Number of civil servants, farmers, - NGO members, extension agents and researchers reporting good knowledge on CC risk reduction measures in irrigated agriculture, - At least 50 staff of service providers and regional MoA officers receive ToT on climate-resilient EIT/CA for target VC production - The volume of services and inputs related to climate-resilient technologies from service providers and used by farmers in target VC cluster areas increases by 20% over current levels	- Firm commitment and cooperation of relevant governmental bodies - All concerned actors are willing to participate - The project is able to provide relevant TA and identify best practices
3.2.2 At least 3,000 farmers participate in 30 on-farm demonstrations where new irrigation and CA production systems and technologies are tested and validated	- 1000 ~~At least 3,000~~ smallholder farmers trained in climate-resilient farming systems and technologies - 10 ~~30~~ demonstration plots on EIT and CA technologies and farming systems provide successful results in soil and water improvements and higher yields from selected VC crops	- Commitment from relevant governmental bodies is secured - All concerned local actors are willing to participate - The project is able to provide relevant TA and identify best practices

3.6. Context of ongoing and previous evaluations

M & E plan: The GEF project was designed for project monitoring and evaluation to be conducted in accordance with established IFAD and GEF procedures. The Initial Project Results Framework provides indicators for project implementation and monitoring and evaluation.

The project was designed to undertake a baseline survey to define the status prevalent before the initiation of the project activities, particularly in the target areas and in/around the selected irrigation schemes. Part of the M & E plan was to collect basic data and information relevant to the project, and to set project indicators.

The plan was to fine-tune the progress and performance/impact indicators of the project during the inception workshop, where specific targets for the first year of implementation, progress indicators, and their means of verification were to be agreed. The plan was to use these to assess whether implementation is proceeding at the intended pace and in the right direction and will form part of the annual work plan. The plan was for to define targets and indicators for subsequent years annually as part of the internal evaluation and planning processes undertaken by the project team. It was planned for measurement of impact indicators related to adaptation benefits to occur according to the schedules defined in the inception workshop.

In line with GEF requirements, the IFAD/SCCF project was designed to adopt criteria for its monitoring systems, which are SMART. These are reflected in the project results framework. The M&E plan was devoted to ascertain the extent of women's participation in programme activities, constraints faced, benefits gained, aspirations met and impact on women's status in the family, their involvement in community affairs and the climate-proofing of their agriculture.

Table 9 Initial monitoring and evaluation plan and budget

Type of M & E activity	Responsible parties	Time frame
Inception workshop (IW) and report, incl. annual work plan	Project coordinator / IFAD	Within first two months of start up
Baseline survey	Project Team/IFAD	Within first six months of start up
Annual Project Report (APR and Project Implementation Report (PIR)	Project Team/IFAD	Annually
Thematic Project Report (TPR)	Project Team/IFAD	Every year, upon receipt of APR
Mid-Term Evaluation (MTR)	Project team/IFAD External Consultants (i.e. evaluation team)	At the mid-point of project implementation
Terminal Evaluation Report (TER)	Project team, IFAD External Consultants	At the end of project implementation
Terminal Report	Project team IFAD/External Consultant	At least one month before end of project

4. Findings

The findings of the TE are structured around the evaluation criteria questions (see Annex F), also broken down into specific question below, so that report users can make the connection between what was asked and what was found. Variances between original (planned) and actual results are explained, as well as factors affecting the achievement of intended results. The report elaborates on the following areas: project design/formulation (4.1), project implementation (4.2), and project results and progress to impacts (4.3).

4.1. Project Design/Formulation

4.1.1. Analysis of Results Framework and theory of change

The GEF project was designed to be aligned with country priorities and that of the GEF (SCCF) and IFAD. The GEF project results framework was designed to be integrated with the AMMAR project with the additionality to 'climate proof' proposed activities and mainstream climate change into processes. A schematic theory of change was not developed at the project design stage but linkages between problems, needs and proposed activities were clear. The project was initially designed to be implemented in four years, but this was not enough time to complete all activities.

Table 10 Analysis of Results Framework and theory of change evaluation questions / points and response

Evaluation question / points	Response	Source of info / evidence
- Was the project designed to address country priorities and be country-driven?	Yes. The GEF project was aligned with the priorities of the Government of Georgia, incl. - EDPRP - SADG. - SNC - TNA The promotion of Climate Smart Agriculture technologies respond to the climate change adaption priorities identified by the Government (improved soil fertility, increased soil water conservation, reduced productivity losses); project activities were executed by the government, support ownership of the project	Section 3.2 Project design documents Context and problems that the project sought to address
- How was the Results Framework defined?	The GEF project results framework was designed to be integrated with the AMMAR project with the additionality to 'climate proof' proposed activities and mainstream cc into processes	Table 8**Error! Reference source not found.** Project design documents
- Were the project's goal, objective, outcomes and outputs clear and practicable?	Mostly. The GEF goal and objective were clearly defined. Some outputs included target statements However, the integration with the AMMAR project made the analyses / identification of the GEF project specific results challenging	
- Were the indicators in the Results Framework SMART and was monitoring reporting according to expectations	Mostly. Some indicators were phrased in a way that they already included target statements. The Monitoring of indicators / targets was not fully in line with GEF Adaptation tracking tool and GEF specific results were not always clear.	

- Was the time for implementation sufficient?	No. Initially, the project was designed to be 6 years. On government request this was reduced to 4 years. Due to a slow start and delays due to the COVID-19 pandemic, the project duration was extended.	
- Was there a schematically portrayed Theory of Change?	No. The project design documents did not include a schematic portray of the "theory of change. A 'reworked' theory of change table has been included in this document. However, the relation between the problem and how to address it was clearly defined at the design phase	Section 3.4
- Was the M & E at entry designed so that progress for all relevant indicators could be tracked accurately?	Mostly. A results framework with indicators and targets was developed. However, indicators did not fully match those in the GEF Adaptation tracking tool and gender-related indicators and targets were limited	Section 3.6: Context of ongoing and previous evaluations Project implementation progress report (project results framework)

Main observations:

- There is overlap between the AMMAR project and the GEF project results frameworks, including indicators and targets. This makes sense as the projects are integrated. However, this made monitoring of specific GEF project results (i.e. additional to base project) not straightforward. Therefore there could have been clearer indicators and targets to monitor results of GEF project as addition to the base project.
- Most outcomes, outputs and indicators were clear. However, some outputs and indicators already included targets statements.
- Indicators in the GEF results framework are not fully aligned with the GEF adaptation tracking tool indicators. Therefore, indicators of the project results framework could have been better aligned with the GEF adaptation tracking tool indicators
- The project had a slow start; the covid-19 pandemic only slightly delayed the project. Therefore the time anticipated for implementation was underestimated.
- Although there was no schematically portrayed theory of change, the linkages between the problems and the needs / propose response activities were clear.

4.1.2. Assumptions and Risks

The GEF project was designed with Assumptions mentioned in the results framework. Related risks and mitigation measures were proposed in a dedicated table in the project design documents.

Table 11 Assumptions and risks evaluation questions / points and response

Evaluation question / points	Response	Source of info / evidence
- Were the assumptions and risks well-articulated in the PIF and project document?	Mostly. Assumptions were mentioned in the results framework. Related risks and mitigation measures were proposed in a dedicated table	Table 7 Table 8 Project design documents**Error! Reference source not found.**
- Were the stated assumptions and risks logical and robust, and did they help to determine activities and planned outputs?	Mostly. Stated risks seemed to be relevant and resulted in proposed engagement, awareness raising and capacity strengthening activities.	

- How were any externalities relevant to the findings?	The COVID-19 pandemic resulted in additional challenge to conduct field work at the end of the project	

Main observations:

- Assumptions and risks were identified at design stage. However, identified risks related to initial delays did not prevent slow start-up of the project.

4.1.3. Lessons from other relevant projects incorporated into project design

The GEF project was designed to build on lessons from the International Center for Agricultural Research in the Dry Areas (ICARDA) programme and GIZ on improving production systems.

Table 12 Lessons from other projects evaluation questions / points and response

Evaluation question / points	Response	Source of info / evidence
- Were lessons from other relevant projects properly incorporated in the project design?	Yes. From the International Center for Agricultural Research in the Dry Areas (ICARDA) Programme on improved production systems, new promising varieties of cereals and legumes resistant to drought, salt soils and diseases, promising livestock management, new water saving and resource conserving agronomic practices, etc. From the GIZ supported projects on conservation agriculture development and protective vegetation shelterbelts rehabilitation in Kakheti region. The project was designed to build on the GIZ successful results on increasing production quality standards and reducing trade barriers, in collaboration with the organic association Elkana (e.g. organic agriculture production and marketing of products such as wine, through participation in international organic fairs).	Section 3.2 Project design documents Interviews with project staffContext and problems that the project sought to address

Main observations:

- The project design documents mention lessons from other relevant projects and initiatives that were incorporated in the project design, but it is not clear what these lessons are exactly.

4.1.4. Linkages between GEF project and other interventions within the agriculture sector

The GEF project was design to build on IFAD initiatives and to be integrated with the AMMAR project

Table 13 Linkages with other projects evaluation questions / points and response

Evaluation question / points	Response	Source of info / evidence
- Were linkages established with other complementary interventions? Was there planned coordination with other relevant GEF-financed projects and/or other initiatives?	Yes. The GEF project component was designed to build directly on the IFAD funded Agricultural Support Project (ASP) and to complement activities and achievements under the Small-scale Rural Infrastructure component (SSRI) in light of the expected impact of climate change. Besides that it was fully integrated with the AMMAR project.	Project design document Interviews with project staff Context and problems that the project sought to address

Main observations:

- The GEF project was fully blended with the AMMAR project.

4.1.5. Selection of project targeted communities and planned stakeholder participation

The target populations were clearly defined. However, it is not fully clear how the specific groups' views / needs and concerns were incorporated in the design. The roles between IFAD and MEPA (the executing entity) and service delivery partners were clear.

Table 14 Participation evaluation questions / points and response

Evaluation question / points	Response	Source of info / evidence
- Were perspectives of those who would be affected by project decisions, those who could affect the outcomes, and those who could contribute information or other resources to the process, taken into account during project design processes?	Unclear. The target populations were clearly defined. However, it is not fully clear how the specific groups' (women, youth, most vulnerable) views / needs and concerns were incorporated in the design	Project overview Project design documents Interviews with project staff Context and problems that the project sought to address
- What were the planned stakeholder interactions	Engagement of farmers through farmer organisation(e.g. through associations). However, during the start it became clear farmers were not well organised. The targeting of direct beneficiaries' households, agribusinesses and other value chain participants was planned on the basis of their active involvement (demand driven) in the prioritized value chains and their interest in participating in the project activities. Capacity building was planned to develop a more conducive policy environment for climate-resilient agriculture through a policy dialogue and participation of farmers	
- Were the partnership arrangements properly identified and roles and responsibilities negotiated prior to project approval?	Mostly. The Execution entity was identified as well as service provider options	

Main observations:

- Target populations were clearly defined but it is was not clear how the groups' specific views / needs and concerns were incorporated in the project design. Therefore, specific groups' needs and concerns could have been more clearly identified.
- The involvement of farmers was planned through farmer organisation (e.g. water user associations), but the 'organisation' of farmers turned out to be limited. Therefore, it could have been better analysed how engage farmers through their organisation, if already existing.

4.1.6. Gender responsiveness

The gender responsiveness of the project was limited at the project design stage.

Table 15 Gender responsiveness evaluation questions / points and response

Evaluation question / points	Response	Source of info / evidence

- Was a gender analysis conducted during project preparation?	Limited The project design documents include data on gender and targets women and youth but it is not clear how their specific views, needs and concerns have been integrated in the design of the project, especially in relation to climate change adaptation.	Section 3.2 Project design documents Interviews with project staffContext and problems that the project sought to address
- Did the project results framework include gender-responsive indicators, and sex-disaggregated data?	Limited. Project monitoring and reporting data would be disaggregated by gender but a gender mainstreaming action plans was not developed	

Main observations:

- Although project monitoring and reporting would use disaggregated data and female participation targets were set, specific views, needs and concerns were not clearly incorporated in the project design. Therefore, a clear gender approach and baseline with specific needs and concerns should have been part of the project design.

4.1.7. Social and Environmental Safeguards

A project social and environmental safeguard system was not put place during the project design phase.

Table 16 Social and environmental safeguards evaluation questions / points and response

Evaluation question / points	Response	Source of info / evidence
- Was a social and environmental safeguard system put in place during the project design phase	Limited. The GEF project and baseline AMMAR project were designed without a the IFAD Social, Environmental and Climate Assessment Procedures (SECAP). The IFAD SECAP procedures were developed later; thus were not in force at that time of the project design. However, at the time of the design, the project complied to the IFAD policies on environment, climate and gender.	Project design documents Interviews with project staff Context and problems that the project sought to address

Main observations:

- At the project design phase, it was not required to have a project social and environmental safeguard system in place. The IFAD SECAP procedures was not in force.

4.2. Project Implementation

4.2.1. Adaptive Management (considering results framework / theory of change, other projects)

The project start was delayed as the AMMAR base-project required some redesign after baseline assessments were conducted. As the ERASIG project is blended with the AMMAR project, this resulted in a some delay. Besides that there were some recruitment delays. Related to that (and the COVID-19 crisis) the project was extended with a total of 19 months to implement all proposed activities. The Mid-Term Review suggested to improve the M&E system, improve timely implementation of activities and develop agender mainstreaming action plan.

Changes were made to the results framework for the AMMAR baseline project but related to that, adjustment to the GEF project results framework were not updated. A gender mainstreaming action plan was not prepared/implemented.

Table 17 Adaptive management evaluation questions / points and response

Evaluation questions / points	Response	Source of info / evidence

- What significant changes did the project undergo as a result of the inception phase and recommendations from the Mid-Term Review, or as a result of other review procedures (consider timeframe, results framework / theory of change)?	- Project time extension:
	  ○ The Project was extended by 16 months on 18 March 2019 (due to slow start)
	  ○ The project was extended by another 3-month for IFAD Loan to complete the contracts of the last two irrigation infrastructure whose works had been delayed by the COVID-19 lockdown on 3 July 2020.
	- The MTR suggested to:
	  ○ Improve the M&E system
	  ○ Improve the timely implementation of interventions (matched with annual plan)
	  ○ Develop a gender mainstreaming action plan that aims at making the project interventions more inclusive for women.
	- Results framework / logframe: baseline AMMAR project indicators and targets were adjusted and matched with annual work plans – GEF project Results framework were matched with annual work plans but initial indicators and targets were not clearly adjusted to those of the updated AMMAR results framework
		PIRs
		
		MTR report
		
		AMMAR completion report
		
		Interviews with project staff
		Context and problems that the project sought to address

Main observations:

- The project implementation period was extended to deliver all activities proposed under AMMAR and GEF project
- The MTR suggested to develop a gender mainstreaming action plan. However, this was not really developed.
- The GEF project results framework and indicators and targets were not clearly adjusted to match the changed AMMAR results framework and annual targets ; adjustments to the base-project should have been clearly reflected in the GEF project

4.2.2. Project Finance and Co-finance

Table 18 GEF Finance and Co-financing (from proposal)

Co-financing (type/source)	IFAD (mill. US$)		Government (mill. US$)		Beneficiaries (mill. USD)		Other (Danida)		GEF (mill. US$)		Total (mill. US$)	
	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual	Planned	Actual
Grants	0,50	0,16					4,11	4,11	5,30	5,09	9,91	9,36
Loans	13,30	11,58									13,30	11,58
Other			2,46	1,84	5,76	8,60					8,22	10,44
Totals	13.80	11.74	2,46	1,84	5,76	8,60	4,11	4,11	5,30	5,09	31,43	31,38

Financier	Revised appraisal (USD)	Disbursement (USD)	% disbursed
IFAD loan	12,004,087	11,577,627	96
IFAD grant	500,000	160,000	32
GEF grant	5,300,000	5,091,587	96
Danida grant	4,110,000	4,110,000	100
Government of Georgia	1,800,000	1,837,858	102
Beneficiaries	9,760,800	8,604,858	88
Total	33,474,887	31,381,652	94

Period	GEF grant
2015	27,122
2016	182,012
2017	733,441
2018	1,403,409
2019	1,507,711
2020	1,237,888
2021	0
Balance	208,413 (4 %)

Main observations:

- Total amount of loan reduced due to change exchange rate
- Reduction government contribution
- Increase beneficiaries contribution
- Danida support from 2017
- GEF fund disbursed: 96 %; most effective implementation 2018-2020

The Project has managed to reach a total of 45,045 beneficiaries at an actual unit cost of USD 692, which is 11% lower than that envisaged at appraisal (and 18% lower than at revised MTR budget), indicating efficient allocation of resources. Specific elements of good value for money in AMMAR have been noted as:

- The design of more affordable Demonstration Plots meant to be more replicable by smallholder farmers: with the same budget, the Project managed to establish 17 DPs vs. 10 Demonstration Plots foreseen at design;
- The efforts to address the needs of economically active smallholder farmers through its first trench of grants: unlike in other grant facilities implemented in Georgia by other development agencies, there was no minimum threshold to apply for a grant, and therefore the project managed to attract even small investors in primary agricultural production, leading to wider outreach to farmers;
- The cost-effective use of Project resources along irrigation infrastructure: average per ha investments in irrigation systems rehabilitation (excluding Iakublo dam) is equivalent to about USD 835 against USD 1,000-1,500 estimated at project design.

4.2.3. IFAD implementation / oversight and Implementing Partner execution

Table 19 Implementation / oversight GEF Finance and Co-financing

Evaluation question / points	Response	Source of info / evidence
Extent to which IFAD delivered effectively on activities related to project identification, concept preparation, appraisal, preparation of detailed proposal, approval and start-up, oversight, supervision, completion and evaluation.		
- Adequacy, quality and timeliness of IFAD support to the Implementing Partner and Project Team	- There were delays in the project start-up (mostly due to required redesign of some elements of the baseline AMMAR project, the delay in recruitment of project staff and related oversight of the project). - After 2017, the project showed high effectiveness in delivering activities according to timeline (i.e. annual plans) - The Activities were delivered in line with annual plans and the baseline AMMAR project but were not fully in line with the initial proposal	PIRs MTR report AMMAR completion report Interviews with project staff
- Responsiveness to significant implementation problems	- Supervision missions were increased - A non-functioning service provider was replaced - Procurement issues were identified and solved	
- Adequate oversight of the management of environmental and social risks as identified through the IFAD SECAP	- Project did not include a Social, Environmental and Climate Assessment Procedures (SECAP) at the start. However, principles were integrated and complied to during implementation	
- Was the M & E plan implemented according to plan?	Mostly. - The inception workshop / report was not produced. - Changes made to the baseline-AMMAR project results framework were not clearly made the GEF project results framework - Otherwise the M & E was conducted according to plan	- Section 3.6: Context of ongoing and previous evaluations - Project implementation progress report (project results framework)
Extent to which the Implementing Partner effectively managed and administered the project's day-to-day activities under the overall oversight and supervision of IFAD.		
- Was there an appropriate focus on results and timeliness	- There was a delay of implementation compared to annual plans at the start-up phase	PIRs MTR report

- Appropriate use of funds, procurement and contracting of goods and services	- The major procurements were civil works, consultancies for design and supervision of works, studies and training. The bidding processes were managed by the Project management unit, while the evaluation committees were formed from MEPA's staff with participating members from AMMAR / GEF project as observers and non-voting members. - Procurement issues highlighted by IFAD missions in the first years were related to the Prior/Post requirements set in the Procurement Plan (PP), that did not respect the Letter to the Borrower (LTB) requirements. The 2017 MTR also noted that in some cases, IFAD's No Objection was not sought at the level of Contract award for some Prior Review Contracts. To better match the level of procurement required in AMMAR, the thresholds set in the LTB were reviewed	AMMAR completion report Interviews with project staff
- Quality of risk management	- No issues encountered	
- Adequate management of environmental and social risks	- Although the project did not include a Social and Environmental risks management plan at the start, risks were identified and mitigation measures proposed and principles integrated during project implementation.	

Main observations:

- Initial delays were cause by combination of required resigned of base-project (AMMAR), delay in recruitment of project staff (and related project oversight) and set-up required to engage farmers, for which a mechanism was non-existent.
- Although some changes were made to base project (AMMAR), project activities proposed under the GEF project were mostly delivered
- Quality of procurement was high after 2017; initial issues were related to low bidding rates and initial requirements set.
- A basic level of social and environmental risks management was implemented during the project

Table 20 Implementation / oversight rating

IFAD Implementation / oversight & Implementing partner execution	Rating4
Quality of IFAD Implementation/Oversight	Moderately satisfactory (MS)
Quality of Implementing Partner Execution	Satisfactory (S)
Overall quality of Implementation/Oversight and Execution	Satisfactory (S)

4.2.4. Risk Management

Table 21 Risk management evaluation questions / points and response

Evaluation question / points	Response	Source of info / evidence
- Were new risks or changes to existing risks reported on in the annual PIRs and/or MTR?	Yes. - New Risks were identified:	PIRs MTR report

[4] Outcomes, Effectiveness, Efficiency, M&E, I&E Execution, Relevance are rated on a 6-point rating scale: 6 = Highly Satisfactory (HS), 5 = Satisfactory (S), 4 = Moderately Satisfactory (MS), 3 = Moderately Unsatisfactory (MU), 2 = Unsatisfactory (U), 1 = Highly Unsatisfactory (HU). Sustainability is rated on a 4-point scale: 4 = Likely (L), 3 = Moderately Likely (ML), 2 = Moderately Unlikely (MU), 1 = Unlikely (U)

	- Risk of contracting non-appropriate service provide - Risk of non-properly skilled company to successfully participate in tender on Preparation of National Adaptation Plan - Risk of lack of access to finance and the cost of investment	AMMAR completion report Interviews with project staff
- How did those risks affect project implementation	- Risk mitigation measures were put In place. - Service provider CENN was replaced	
- What systems and tools were used to identify, prioritize, monitor and manage those risks?	- IFAD regular / annual supervision	
- Were any risks overlooked and what were the consequences of that	- No	

4.2.5. Actual stakeholder participation and partnership arrangements

Table 22 Participation evaluation questions / points and response

Evaluation question / points	Response	Source of info / evidence
- Participation and country-driven processes: How did local and national government stakeholders support the objectives of the project?	- MEPA had an active role (high-level) in decision-making as execution entity - Municipalities: capacity strengthened - Farmers: limited engagement at the start (mostly due to limited farmer organisation) but improved throughout implementation	PIRs MTR report AMMAR completion report Interviews with project staff

- Participation and public awareness: How did stakeholder involvement and public awareness contribute to the progress towards achievement of project objectives?	- The project was presented as integrated project with the baseline AMMAR project and climate change objectives and projected outcomes were shared.
	- An exit strategy, including O&M, was prepared with authorities being involved, incl.
	  ○ Georgia Amelioration company (GA) for irrigation infrastructure
	  ○ MEPA for laws
	  ○ Municipalities, farmers, National Agency of State Property (NASP) for windbreaks
	  ○ Rural Development Authorities (RDA) for grants monitoring	

- Extend of stakeholder interaction: How did actual stakeholder interaction compare to what was planned in the project document and Stakeholder Engagement Plan?	According to plan (see also above). Only the Caucasus Environmental NGO Network (CENN) service provider did not deliver (due to lack of capacity) and was replaced. Other service providers delivered according to plan: - Elkana: service provider delivered - Rural Development Agency (RDA): service provider delivered - Regional Environmental Center for the Caucasus: service provider delivered	
- Gender: - How appropriate and adaptive was the gender action plan in facilitating gender mainstreaming objectives and how were women involvement benefits ensured?	- A gender action plan was limited to participation targets. - Consideration of women specific needs and concerns, especially climate change-related, were limited	

Main observations:

- Institutional engagement was strong
- Farmer engagement took time because they were not well organised
- Bureaucracy resulted in slow start-up (combined with limited leadership from IFAD at the start)

- Stakeholder engagement was according to plan. Only CENN contract had to be terminated due to underperformance – an alternative service provider was identified
- Gender approach/plan was limited to participation targets.

4.2.6. Gender Responsiveness

Although the GEF project and the baseline-AMMAR project set targets for women outreach, the design document did not foresee (nor budgeted) the position of a Gender Specialist and it did not elaborate a specific gender targeting strategy. This issue had thus to be addressed after inception through additional IFAD support. The position of a Gender Specialist was created, and additional guidance was provided by IFAD, though a bit too late in the Project life to make a definite breakthrough in terms of women empowerment. A gender action plan was developed in 2019, however the advanced status of implementation led to focus the action plan mostly to consolidate the project experience and draw lessons learned that could feed into the new IFAD-funded project.

Gender Mobilization Groups to inform poor rural women (building upon the work of UNDP, SIDA, the Georgian Employers Association and USAID) were not created. However, women farmer leaders were identified to support demonstration trials in their farm plots.

Municipalities with rehabilitated irrigation systems noticed a greater involvement of women farmers, mostly urban women who considered advantageous investing in a rural business. Questionnaires also revealed that the irrigation systems freed up women's time to fetch water and made it easier for them to engage in agriculture or to expand their land under cultivation.

4.2.7. Social and environmental safeguarding

A project social and environmental safeguard system was put into place during project implementation.

Table 23 Social and environmental safeguards evaluation questions / points and response

Evaluation question / Points	Response	Source of info / evidence
- Was a social and environmental safeguard system put in place during the project	Yes. The IFAD SECAP procedures were developed and applied during project implementation and monitored during supervision missions.	PIRs MTR report AMMAR completion report Interviews with project staff Context and problems that the project sought to address

Main observations:
- The SECAP procedures were applied during project implementation.

4.3. Project achievements / results

4.3.1. Introduction to project achievements / results and benefits

The GEF project has mainstreamed climate change into the baseline-AMMAR project. Irrigation infrastructure rehabilitation, landscape restoration and demonstration plots were part of a coherent, sustainable and climate resilient approach, and presented as such to stakeholders during implementation. The windbreak pilot was accompanied by full management plans, installed nurseries and supported the upcoming national policies on Windbreaks and on Soils Conservation. On-farm climate-resilient technologies Demonstration Plots were installed successfully, and training was conducted.

Under outcome 1 of the GEF project, specific climate resilient investments supported grants (under primary production) were dedicated to drip irrigation, greenhouse rehabilitation and special agricultural equipment. A total of 217 such grants were made available under the GEF budget. The table below informs on the type of grant financed under this intervention.

Table 24 GEF-funded grants (primary production)

Type of CSA practice	% Of total grants
Bee colonies	7.5
Anti-hail nets	4
Drip irrigation system	22.5
Greenhouse rehabilitation / reconstruction	49.5
Cultivation of perennial crops / Orchard Rehabilitation	11.5
Other agricultural equipment adapted to CC	5
Total	**100**

Source: AMMAR PMU reports.

Under outcome 2 of the GEF project, a total of 3,079 ha of land was brought under climate-resilient practices. River-bank protection interventions were completed in the Kakheti region, in November 2017 in Chumlaki and in Giorgeti Kakheti in March 2018 and have locally restored 320 ha of agricultural land. 2,759 ha of land became under protection from wind erosion after the establishment of pilot windbreaks.

Under outcome 3 of the GEF project, three policy processes on climate issues had been initiated: The Climate Change National Adaptation Plan for the Agricultural Sector (CCNAP), was achieved in 2017. Two Regulatory Impact Assessments (RIAs) were also produced in 2019 to guide the drafting processes of the "Law on Windbreaks" and the "Law on Soil Protection"[5].

Before the GEF project, the main on-farm irrigation technology in the project area was surface irrigation. The grant from the GEF project increased installation of on-farm water use efficiency technologies. Efficient on-farm irrigation, and soil and water conservation for sustainable agriculture production, contributed to reduced use of fossil fuel and increased soil carbon. In particular, the project promoted use of sprinklers and drip irrigation systems to improve water management and efficiency, and the adoption of Conservation Agriculture systems (the combined use of reduce/no till, soil mulching, vermicomposting, crops rotation and diversification, and integrated nutrient and pest management) to improve soil fertility and soil carbon and water storage.

Rehabilitation of irrigation canals and other water infrastructure contributed to improve management of water resources, reduce operation/exploitation costs, eliminate water losses, and stimulate private investment from the side of farmers and agribusinesses. Farmers are currently informally organized to manage water resource and these developments will also contribute to improve collective water management and potentially support the creation of Water Users' Organization.

Wind erosion is one of the three main climate change impacts identified by the respondents in the project. The reduction in wind speed around the windbreaks results in many benefits as erosion

[5] More information on policy support is provided in Section D.2.v and Appendix 5 of this report

control, improved snow distribution, food and wood production, increase wildlife habitat, improved livestock productivity and improved crops quality and yield.

Main challenges:

- The baseline-AMMAR project was not clearly distinguished from the GEF project, including indicators and targets. Although integration of the projects has benefits, it makes monitoring and evaluation of GEF-specific achievements difficult.
- 4-year duration was too short for the project (should have been 6 years as per original design).
- Substantial delays in project start-up, that translated in low budget execution till mid-term (2017)
- Project supervision / management challenges included redesign of some activities (and targets) and engagement of farmer beneficiaries as mechanism for engagement were limited.
- Targeting of economically active smallholder farmers was in line with Government efforts to shift from subsistence to business-oriented agriculture. However, this is meant that the project wouldn't fully reach IFAD's traditional target group of the most vulnerable farmers.
- Access to finance remains an important bottleneck in the agriculture sector. This was partially addressed via grants only. No specific budget was dedicated at design to engage with financial institutions and facilitate access to loans.
- Lack of guidance for gender targeting strategy at the project design phase
- Agribusiness Grants did not manage to attract expected number of investors

4.3.2. Relevance

Table 25 Relevance evaluation questions / points and response

Evaluation question / points	Response	Source of info / evidence
Alignment with national priorities: Extent to which the project's objectives were in line with the national development priorities and climate change priorities	The project was aligned with: - The Second National Communications to the UNFCCC (SNC), - Technology Needs Assessment (TNA). - The 2003-2015 Economic Development and Poverty Reduction Programme of Georgia (EDPRP) - The Strategy of Agriculture Development of Georgia for 2015-2020 - Investments in irrigation are highly relevant for Georgia in view of increased water scarcity due to climate change, irrigation systems functioning at about 30% capacity, abundant surface water resources and the potential productivity gains from irrigation - The pilot on windbreaks is fully in line with the recent MEPA emphasis on windbreak rehabilitation - The promotion of climate smart agriculture (CSA) technologies respond well to the climate change adaption priorities identified by the Government (improved soil fertility, increased soil water conservation, reduced productivity losses)	Section 3.2. Design documents PIRs MTR report AMMAR completion report Interviews with project staff Project implementation progress report (project results framework) GEF Adaptation tracking tool
	Highly Satisfactory (strong alignment)	
Alignment GEF strategic priorities	The project was aligned with: - the Climate Change Strategy for GEF-5 outcomes 1.2, 2.1., 2.2., 2.3, 3.1. and 3.2 (added 2.2. to initial design)	
	Satisfactory (mostly aligned)	
Alignment with IFAD priorities	The project was aligned with: - IFADs climate change strategy The project was Not fully aligned: - Although (re)targeting of economically active smallholder farmers was in line with	

	Government efforts to shift from subsistence to business-oriented agriculture, this meant that the project wouldn't fully reach IFAD's traditional target group of the most vulnerable farmers.	
	Satisfactory (mostly aligned)	
Alignment with SDGs	It was aligned with: - SDG1, SDG 2, SDG5, SDG6, SDG13 and SDG 15	
	Satisfactory (mostly aligned)	
Stakeholder engagement: - Extent to which relevant stakeholders participated in the project - Extent to which the project was formulated according to the needs and interests of all targeted and/or relevant stakeholder groups - Extent to which the intervention is informed by needs and interests of diverse groups of stakeholders through in-depth consultation	Strong participation: - MEPA - Farmers (eventually, considering the co-financing) Limited consideration at design: - Specific needs women and youth - Specific needs farmers (Bit general) - Specific Climate change vulnerabilities and needs and response identification; was mostly based on cc models and assessment conducted Challenge: - Set-up participatory process as farmers were not organised - Access modalities to financing options were limited - Access to finance remains an important bottleneck in the agriculture sector. This was partially addressed via grants only. No specific budget was dedicated at design to engage with financial institutions and facilitate access to loans.	
	Moderately Satisfactory (limited consideration specific climate change adaptation needs women and most vulnerable)	
Relevance to and complementarity with other initiatives	- There was a strong complementarity between government and IFAD programmes and projects. - FAO was involved with demo plots. USAID, EU and UNDP exchanged info with the project. The EU supported the creation of small farmers' organizations.	
	Satisfactory (complementarity established – although not with all stakeholders as planned)	

Main observations:

- The GEF project was built on other relevant initiatives/projects
- The GEF project remained strongly aligned with government, GEF and mostly aligned with IFAD priorities
- It responded to the needs of farmers in general but not specifically to women and youth needs. A gender approach or strategy was not developed at the design stage.
- It is unclear how much the project responded to specific local climate change vulnerabilities and related needs of most vulnerable.
- Main limitations:
    - Limited guidance on gender approach / strategy
    - Although a general linkage between climate change impacts / vulnerabilities and response options is established the linkage at local level and specific needs of climate change vulnerable groups is not fully clear.
    - Weak strategy/mechanism to engage famers at start of the project
    - Limited access to financing modalities (mostly subsidy approach).

Project implementation design changes

- Improvement IFAD oversight / management through guidance and supervision missions
- Position of gender Specialist was created but impact was limited as involvement was late in the process
- Refocus from poorest to commercially active farmers to ensure better effectiveness and sustainability.

4.3.3. Effectiveness

Table 26 Effectiveness evaluation questions / points and response

Evaluation question / points	Response	Source of info / evidence
Extent to which the project contributed to national development priorities, GEF strategic priorities, IFAD priorities and the SDGs; and factors that contributed to the achieving or not achieving intended outcomes and outputs	The project contributed to the following priorities: Country development priorities - The GEF project achieved its overall goal to sustainably increase incomes and reduce poverty for women and men in rural Georgia GEF strategic priorities - The GEF project was in line with GEF strategic priorities IFAD priorities - The GEF project was mostly in line with IFAD priorities SDGs - The GEF project supported targets under SDG1, SDG 2, SDG5, SDG6, SDG13 and SDG 15 Contributing factors or not - Strong country ownership; strong IFAD supervision from MTR period	Section 3.2. Design documents PIRs MTR report AMMAR completion report Interviews with project staff Project implementation progress report (project results framework) GEF Adaptation tracking tool
	Satisfactory (mostly supports priorities)	
Extent to which the project's actual goal, objectives and outcomes/outputs were achieved / commensurate with what was planned	Goal: - Beneficiaries with access to resilient agriculture systems: 75% of target - Nr target households: 170% of target Objective: - % Target beneficiaries with increased income > 20 %: 64% of target - Increase of income of involved beneficiaries: 300% of target - Climate resilient agriculture production practices are adopted: 110% of target Outcomes: - Ha of land improved through climate resilient EIT and/or CA: 136% of target - Grants to primary producers: 103% of target - Grants to agribusinesses: 65% of target - Land brought under climate-resilient practices (riverbank protection and windbreaks): 153% of target - Landscape restoration plans: 525% of target - Policy dialogues: 300% of target - Nr staff received ToT: 218% of target - Trained farmers: 247% of target - Demonstration plots: 170% of target	
	Satisfactory against adjusted targets Moderately Satisfactory against original targets	
Areas in which the project had the greatest and fewest achievements; and the contributing factors	Greatest achievements - Increase of income: 300% of target - Land brought under climate-resilient practices (riverbank protection and windbreaks): 153% of target - Policy dialogues: 300% of target	

	- ToT: 218% of target - Demonstration plots: 170% of target Contributing factors: - Strong supervision from MTR period - Blended targets with AMMAR base-project supported reaching the targets - Change of the results framework with lower than original targets supported reaching the targets; without lower targets some indicators (Landscape restoration plans; trained farmers) would not have overperformed. Fewest achievements - % Target beneficiaries with increased income > 20 %: 64% of target - Grants to agribusinesses: 65% of target - Gender-specific approach / strategy was not developed, which led to limited women specific benefits as response to specific needs. Contributing factors: - Reporting data on target beneficiaries with increased income > 20 % is from 2018 and not from 2020/21, so this number should by higher - There was limited interest of agribusinesses for grants	
Extent to which the intervention achieved global adaptation benefits) taking into account the key factors that influenced the results	The GEF project supported climate proofing of irrigation systems and application of relevant technologies supporting climate change resilience of the agriculture sector. Through riverbank protection and especially windbreaks, soil / agriculture is protected from climate change-related wind and water erosion. Beneficiary farmers and institutional staff have been trained on above	
	Satisfactory (mostly supportive)	
Gender: extent to which the project contributed to gender equality and the empowerment of women?	- Climate resilient agriculture production practices are adopted by women: 110% of target (set for men only) - Grants to primary producers: 19% women - Nr staff received ToT: 27% women - Trained farmers: 28% women	
	Moderately Satisfactory (no specific approach)	

Main observations:

- The GEF project performed well against set targets. Contributing factors were strong supervision from MTR period, good country ownership but also lowering initial targets set during project design.
- There was limited interest from agribusinesses for grants
- The increase of income of involved beneficiaries was high (60% increase)
- From Land brought under climate-resilient practices windbreaks are a promising solution for replication/upscaling
- Although locally useful for farmers to restore their land, the river-bank interventions cannot be labelled as proper Landscape Restoration interventions in a wider scale, as they have been implemented with insufficiently integrated evaluation and planning. Future project designs should ensure that wider catchment scale approach for river planning and management are in place (e.g., detailed river basin impact studies) to implement this type of intervention.
- Number of achieved landscape restoration plans was high, in line with original set target
- There has been strong involvement of government staff and an effective policy dialogue with three strategies/laws drafted.
- Women received grants and trainings but achievement against targets cannot be analysed as specific targets were not set and a gender-specific approach/strategy was not developed

4.3.4. Efficiency

Table 27 Efficiency evaluation questions / points and response

Evaluation question / Point	Response	Source of info / evidence
Resource allocation and cost effectiveness: - Extent to which there was an efficient and economical use of financial and human resources and strategic allocation of resources - Whether the project completed the planned activities and met or exceeded the expected outcomes as cost-effective as initially planned; - Costs of not providing resources for integrating gender equality (e.g. enhanced benefits that could have been achieved for modest investment); - Extent to which the allocation of resources to targeted groups takes into account the need to prioritize those most vulnerable / marginalized.	- The baseline-AMMAR project was not clearly distinguished from the GEF project, including indicators and targets. Although integration of the projects has benefits, it makes monitoring and evaluation of GEF-specific achievements difficult. - Outcome 1: planned targets (lower than original) achieved with resources - Outcome 2: planned targets (lower than original) over-achieved with resources - Outcome 3: planned targets over-achieved with resources - Strong co-financing by beneficiaries (farmers) and slightly reduced co-financing government - GEF fund disbursed: 96% - The development and implementation of a gender action plan at the start could have led to increased benefits to women - Funding to identify specific climate change needs of the most vulnerable / marginalized could have benefitted these groups - For the GEF project + AMMAR base project, the final Internal Rate of Return is 13%, lower than the one calculated at design and MTR stages but it remains higher than the economic discount rate, and the cost per beneficiary at completion (USD 692) is 11.6% lower than originally foreseen at design (USD 783).	Design documents Table 18 GEF Finance and Co-financing PIRs MTR report AMMAR completion report Interviews with project staff Project implementation progress report (project results framework) GEF Adaptation tracking tool
	Satisfactory (mostly cost-effective)	

Project management and timeliness:
- Extent to which a project extension could have been avoided (for cases where an extension was approved);
- Extent to which the project management structure as outlined in the project document was efficient in generating the expected results;
- Extent to which project funds and activities were delivered in a timely manner;
- Extent to which M&E systems ensured effective and efficient project management.
  ○ Was the M & E at entry designed so that progress for all relevant indicators could be tracked accurately?
  ○ Was the M & E plan implemented according to plan?
  ○ Was all data / information available for conducting the ET?
	- Delay of initial start could perhaps have been avoided through better design of the baseline AMMAR project results framework, more efficient engagement of farmers and strong supervision from the start.
	- Project supervision/management could have benefitted from a gender expert from the design phase
	- There was a major acceleration and improvement in project implementation from MTR / 2017, because of strong supervision / management. Delays due to a combination of limited supervision at the start, some redesign of baseline project needed and challenges to engage farmers at the start.
	- Despite the initial delays and the disruptions induced by the COVID-19 pandemic the project completed all activities within less than 6 years, which was the original duration foreseen at design before it was reduced to four years upon Government request.
	- The M & E system was focused on base-project; project could have benefitted from clear additional targets for the GEF project and monitoring these separately	

	Moderately Satisfactory (weak start but strong second part of the project	

Main observations:

- The baseline-AMMAR project was not clearly distinguished from the GEF project, including indicators and targets. Although integration of the projects has benefits, it makes monitoring and evaluation of GEF-specific achievements difficult.
- Outcome 3 especially overachieved its targets within resource allocation (also against original targets).
- As per **Error! Reference source not found.**, the GEF project financial performance was strong among the foreseen co-financiers (especially beneficiary farmers), and the resources (96 % spent GEF resources) have been converted into achievements (outputs and outcomes) that surpass the targets (especially adjusted targets)
- The development and implementation of a gender action plan at the start could have led to increased benefits to women and funding to identify specific climate change needs of the most vulnerable / marginalized could have benefitted these groups.
- Slow start could have been avoided if baseline project didn't require some redesign and if involvement of beneficiaries (mechanism to do so – as associations or platforms to engage farmers were limited) was better thought through.
- Project supervision / management could have benefitted from gender expert from the design phase
- Despite the initial delays and the disruptions induced by the COVID-19 pandemic the project completed all activities within less than 6 years, which was the original duration foreseen at design before it was reduced to four years upon Government request.
- M & E system was focused on base-project; project could have benefitted from clear additional targets for the GEF project and monitoring these separately

4.3.5. Overall Project outcome rating

Table 28 Overall project outcome rating

Assessment of outcomes	Rating[6]
Relevance	5: Satisfactory (S)
Effectiveness	5: Satisfactory (S)
Efficiency	4: Moderately Satisfactory (MS)
Overall project outcome rating	5: Satisfactory (S)

*For further details on the rating system, see the 'Guidelines for GEF Agencies in Conducting Terminal Evaluation for Full-sized Projects[40] and TE Rating scales

As indicated in above sections, the overall performance of the GEF project was satisfactory.

Regarding the relevance of the project, the alignment of the project with national, GEF, IFAD and SDG priorities and complementarity with other initiatives was satisfactory. The only point that could have been stronger was a consideration of specific climate change adaptation needs of women and the most vulnerable and the engagement of farmers at the start of the project (moderately satisfactory).

As for the effectiveness of the project contributed to national, GEF, IFAD and SDG priorities (satisfactory) and over-achieved most of its targets (adjusted during the project) and most of the

[6] Outcomes, Effectiveness, Efficiency, M&E, I&E Execution, Relevance are rated on a 6-point rating scale: 6 = Highly Satisfactory (HS), 5 = Satisfactory (S), 4 = Moderately Satisfactory (MS), 3 = Moderately Unsatisfactory (MU), 2 = Unsatisfactory (U), 1 = Highly Unsatisfactory (HU). Sustainability is rated on a 4-point scale: 4 = Likely (L), 3 = Moderately Likely (ML), 2 = Moderately Unlikely (MU), 1 = Unlikely (U)

original targets. The project was effective in contributing to priorities. The only point that could have been stronger was achievements related to a gender approach (moderately satisfactory).

As for the efficiency of the project, resources were spent in a cost-effective manner. The start of the project was quite weak but was compensated with a strong second half (moderately satisfactory). The M & E system could have benefitted from a better distinction between the baseline-AMMAR project and GEF project indicators and targets as well as reporting. Funding for identifying specific needs (climate change-related) of women and the most vulnerable could have benefitted the project.

4.3.6. Sustainability: financial, socio-political, institutional and environmental.

An exit strategy for all GEF project's activities has been put in place – see summary in below table.

Table 29 Summary GEF project exit strategy

Intervention	Achievements	Key stakeholders	Exit arrangements
Irrigation infrastructure - access to water	irrigation schemes with cc technology	Georgia Amelioration company (GA); Water User Organizations (WUOs); World Bank (WB)	GA is in charge of Operation and Maintenance (O&M) for primary canals; secondary and tertiary canals to be maintained by pilot WUOs supported by WB (this WB pilot will include Dzevera scheme rehabilitated by AMMAR)
Grants for farmers	227 grants disbursed	Beneficiaries	Beneficiaries contributed 60% upfront
Grants for agri businesses	13 grants disbursed	Beneficiaries	
Policy support	1 CCNAP	MEPA; Government of Georgia (GoG)	Follow the progress of the enforcement of the law on windbreaks and of the law on soil in Parliament and support in making amendments if needed
	RIA for the Draft Law on Windbreaks	MEPA; GoG	
	RIA for the Draft Law on Soil Protection	MEPA; GoG	
Landscape Restoration (LR)	2 river-bank protections (Chumlaki and Giorgeti)	Municipalities	River-bank protection is under municipality responsibility (contributed 5% of cost); O&M budget included in annual plan
	53 km windbreaks	Municipalities; farmers; PMU; National Agency of State Property (NASP)	Municipalities own the windbreaks; adjacent farmers look after them, PMU coordinates with NASP to contribute to the Inventory of windbreaks
	4 nurseries	Nursery owners	Produce appropriate seedlings to meet demand for additional windbreaks
Demonstration plots (DPs)	17 DPs	Lead farmers; Coordination Meeting for the Establishment of the National Network of DPs	Lead farmers to continue giving access to interested farmers for the promotion of CSA technologies
Climate Smart Agriculture training	Whole set of training materials (videos and publications)	ELKANA; Rural Development Agency (RDA)	Links to training materials are accessible on ELKANA's website; RDA has full set of publications produced by ELKANA, for distribution through its regional centers

Source: AMMAR completion report

Table 30 Sustainability evaluation questions / points and response

Evaluation question / Point	Response	Source of info / evidence
Financial sustainability: - What financial and economic instruments and mechanisms have been established (if any) to ensure the ongoing flow of benefits once the GEF assistance ends - What is the likelihood that financial resources will be available once the GEF assistance ends to support the continuation of benefits?	Financial sustainability - See Table 29: O&M budgets are included in annual plans of municipalities - One limitation is the absence of Water User Organisations (WUOs) that, combined with the very low water fees charged nationwide, do not guarantee sustainable maintenance of irrigation infrastructure without heavy	Table 29 Summary GEF project exit strategy + AMMAR-GEF projects exit strategy Design documents PIRs MTR report

- What opportunities for financial sustainability exist? - What additional factors are needed to create an enabling environment for continued financing?	subsidizing from the Government of Georgia. - The Word Bank supports the Water User Organizations (WUOs) - Opportunity: IFAD is working on GCF concept note to support windbreaks - Enabling environment: a sustainable solution for access to financing is required for farmers There are moderate risks to sustainability	AMMAR completion report Interviews with project staff
Socio-political sustainability: - Are there any social or political risks that can undermine the longevity of project outcomes? - What is the risk that the level of stakeholder ownership (including ownership by governments and other key stakeholders) will be insufficient to allow for the project outcomes/benefits to be sustained? - Are lessons learned being documented? - Are the project's successful aspects being transferred to appropriate parties, potential future beneficiaries, and others who could learn from the project and potentially replicate and/or scale it in the future? - Indicate whether the gender results achieved are short-term or long term.	Socio-political sustainability: - There is continued support from the GoG and in this sector and willingness to replicate - Risk: O&M budgets and trainings should be made available over longer period - Lessons learned / (replication) training materials will continue to be available through ELKANA and RDA - There has been a good selection of Lead Farmers owning DP plots, who are willing to share knowledge with other farmers on demand and beyond Project's life; - Gender: grants made available to women have a long-term impact There is little or no risks to sustainability	
Institutional framework and governance sustainability - Do the legal frameworks, policies, governance structures and processes pose any threat to the continuation of project benefits? - Has the project put in place frameworks, policies, governance structures and processes that will create mechanisms for accountability, transparency, and technical knowledge transfer after the project's closure?	Institutional framework and governance sustainability: - An enabling environment has been created with draft laws on windbreaks and soil Conservation. Further support is required to implement and enforce these laws effectively There is little or no risks to sustainability	
Environmental sustainability - What is the likelihood for environmental achievements to be sustained?	Environmental sustainability: - See above and Table 29 - Windbreaks will be sustained through nurseries There is little or no risks to sustainability	

Main observations:

- instruments and mechanisms have been established and an institutional enabling framework put in place to sustain the project activities
- Possible points of concern may be the limited organization of Water User Organisations and limited government budgets to maintain the project activities.
- Additional support may be needed to implement and enforce laws prepared under this project effectively

Table 31 Sustainability rating

Sustainability	Rating[7]

[7] Sustainability is rated on a 4-point rating scale: 4 = Likely (L) (There are little or no risks to sustainability), 3 = Moderately Likely (ML) (There are moderate risks to sustainability), 2 = Moderately Unlikely (MU) (There are significant risks to sustainability), 1 = Unlikely (U) (There are severe risks to sustainability)

Financial resources	3 = Moderately Likely
Socio-political	4 = Likely
Institutional framework and governance	4 = Likely
Environmental	4 = Likely
Overall likelihood of sustainability	4 = Likely

4.3.7. Catalytic/Replication Effect

Table 32 Catalytic / replication effect evaluation questions / points and response

Evaluation questions / points	Response	Source of info / evidence
Scaling up: (regional / national – accepted; legally required)	- There is the potential for scaling up the windbreak pilot at national scale, which is evidenced by the interest displayed by GoG and other development partners and backed by the upcoming Laws on Windbreaks and Soil Conservation. - This could potentially be done through GCF funding.	Table 29 Summary GEF project exit strategy + AMMAR-GEF projects exit strategy Design documents PIRs MTR report AMMAR completion report Interviews with project staff
Replication: (activities, demonstrations, techniques, within or outside project, national, international	- Links to training materials are accessible on ELKANA's website; RDA has full set of publications produced by ELKANA, for distribution through its regional centers	
Demonstration (Sites, info dissemination and training)	- 17 demonstration sites have been established - Lead farmers are to continue giving access to interested farmers for the promotion of CSA technologies	

Main observation:

- Potential for scaling up the windbreak pilot is evidenced by the interest displayed by GoG and other development partners: Backed by the upcoming Laws on Windbreaks and Soil Conservation. This could potentially be done through GCF funding or Adaptation Fund funding. The GOG request for support to the United Nations Convention to Combat Desertification (UNCCD) with IFAD supporting the development of a GCF Concept Note.

4.3.8. Country ownership

These investments seek to increase agriculture resilience to CC risks, boost rural income by improving agriculture productivity and access to markets, and enhance food security by expanding local food supply and creating new income opportunities (through the implementation of the SNC and TNA adaptation priorities for the agriculture sector).

Table 33 Country ownership evaluation questions / points and response

Evaluation question / Point	Response	Source of info / evidence
- Did the project concept have its origin within the national sectoral and development plans? - Were relevant country representatives actively involved in project identification, planning and/or implementation? - Has the recipient government maintained financial commitment to the project? - Have outcomes from the project been incorporated into the national sectoral and development plans?	- The GEF project was designed to follow the approach of country ownership and a focus on results, supporting investments that reflect governmental priorities for poverty reduction and climate change adaptation in agriculture. - Relevant country representatives (esp. from MEPA) were part of the design and implementation of the project, also as executing entity. - Project outcomes have been incorporated in the CCNAP and draft	Section 3.2. Design documents PIRs MTR report AMMAR completion report Interviews with project staff

- Has the government approved policies and/or modified regulatory frameworks in line with the project's objectives?	laws on windbreaks and soil conservation. - O & M budgets have been included in annual plans. There is especially interest to scale-up / replicate the windbreaks interventions	Project implementation progress report (project results framework)

Main observations:

- The GEF project was driven by country priorities and needs.
- There is particular interest to scale-up/replicate the windbreaks interventions

4.3.9. Gender equality and women's empowerment

Table 34 Gender equality and women's empowerment evaluation questions / points and response

Evaluation questions / points	Response	Source of info / evidence
How effective was the project in contributing to gender equality and women's empowerment?	Limited - Consideration of gender specific needs and concern, especially climate change adaptation related, was limited. - A gender action plan was developed at a too late stadium Effectiveness - Women access to grants was 19%; there were Women farmer leaders for the demo plots; the projected increased employment opportunities for women.	Relevant sections above PIRs MTR report AMMAR completion report Interviews with project staff Project implementation progress report (project results framework)
How did gender results advanced or contributed to the project's environment, climate and/or resilience outcomes?	Limited - Consideration of gender specific needs and concern, especially climate change adaptation related, was limited. Contributions: - Women farmer leaders successfully supported demonstration trials in their farm plots	
What gender results have been achieved at the short-term or long term?	Short-term: - Women accessed grants (although 19% of total) – also with long-term benefits. - Women farmer leaders supported demonstration trials in their farm plots - Municipalities with rehabilitated irrigation systems noticed a greater involvement of women farmers, mostly urban women who considered advantageous investing in a rural business. - Female grant beneficiaries were introduced to the United Nations (UN) Women Economic Empowerment programme implemented by the Georgian Farmers Association (GFA), to receive specific training and facilitate their access to other grant facilities. Long-term: - The irrigation systems freed up women's time to fetch water and made it easier for them to engage in agriculture or to expand their land under cultivation. - Additional women's agricultural employment: 46% of indirect beneficiaries are women– often hired at the time of harvesting or as additional labour force on the farms	
Is there any potential negative impact on gender equality and women's empowerment?	- Engagement of women could have been more pro-active	

Points on the project's gender results in terms of relevance, effectiveness, efficiency, country ownership, sustainability and impact.	- The development and implementation of a gender action plan at the start could have led to increased benefits to women - Climate resilient agriculture production practices are adopted by women: - Grants to primary producers: 19% women - Nr staff received ToT: 27% women - Trained farmers: 28% women	

Main observations:

- The GEF project didn't identify gender specific needs and concerns, especially climate change-related at the design phase
- To respond to this gap, a gender action plan was developed a gender expert hired, but this was too late in the process for real impact.
- Despite above, there have been benefits of the GEF project to women.
- However, benefits these could have been greater (and women more empowered) if a gender action plan was developed at the design phase.

4.3.10. GEF Additionality

Table 35 GEF additionality of the project

GEF's additionality	Description
Specific Environmental Additionality	The GEF project supports adaptation to climate change, especially wind and water-related erosion and increasing droughts. Besides that, the windbreaks also support CO2 emissions capture or sequestration.
Legal/Regulatory Additionality	The GEF project supported transformational change to environment sustainable legal/regulatory forms through supporting the development of the CCNAP and draft laws on windbreaks and soil conservation.
Institutional Additionality/Governance additionality	The GEF project supported capacity strengthening of the government including at municipal level.
Financial Additionality	See above
Socio-Economic Additionality	The GEF project supported vulnerable farmers to improve the climate change resilience of their livelihoods.
Innovation Additionality	The GEF project supported the implementation of innovative agriculture techniques.

Table 36 GEF additionality evaluation questions / points and response

Evaluation questions	Response	Source of info / evidence
Are the outcomes related to the incremental reasoning? - Are there quality, quantitative and verifiable data demonstrating the incremental environmental benefits?	Yes. See the results framework, which is backed-up by PIRs and other project reports	Project implementation progress report (project results framework) GEF Adaptation tracking tool PIRs MTR report AMMAR completion report Interviews with project staff
Can the outcomes be attributed to the GEF contribution as originally anticipated?	There is causality between the GEF involvement and environmental benefits, as reporting on points mentioned in	Table 35 PIRs

- Do monitoring and evaluation documents provide evidence of the causality between the rationale for GEF involvement and the incremental environmental and other benefits directly associated with the GEF-supported project?	Table 35 is done in the PIRs and other M & E reports However, some indicators in the GEF adaptation tracking tool are difficult to match with those in the GEF project results framework – this could have been better matched at the project design stage.	MTR report AMMAR completion report Interviews with project staff
Are the outcomes sustainable? - Is there evidence that project outcomes, both environmental and otherwise, are likely to be sustained beyond the project end? (The TE report can refer to the Sustainability section	Yes. See sustainability section	Sustainability: financial, socio-political, institutional and environmental.

Main observations:

- The GEF project outcomes can be attributedto the GEF contribution as originally anticipated. However, linkages between GEF indicators (adaptation tracking tool) and indicators in the results framework could have been clearer/better at the design phase.

4.3.11. Progress to Impact

Table 37 Progress to impact evaluation questions / points and response

Evaluation question / point	Response	Source of info / evidence
Long-term impact of the project (SDG 1, 2, 6, 13 and 15)	- Through improved irrigation and innovative climate change adaptation agriculture techniques and windbreaks, land erosion will be reduced, also reducing loss of agriculture territory, assets, soil fertility and quality of crops. - This would contribute to reducing loss of agriculture production (and food and water security) and poverty. It is difficult to say if the GEF project contributed to preserving cultural identify and avoiding abandonment of farmland.	Project implementation progress report (project results framework) GEF Adaptation tracking tool
Environmental stress reduction: GHG emission reduction (SDG 13, 15)	- Through 53 km of windbreaks, GHG emissions are captured	
Environmental status change: water retention in degraded lands; biodiversity (SDG 6, 13)	- Through efficient irrigation and innovative climate change adaptation agriculture techniques, the environment is managed more sustainably.	
Contributions to changes in policy/legal/regulatory frameworks (SDG 13)	- The CCNAP and draft law on windbreaks and soil conservation should contribute more climate change resilient management of productive agriculture areas.	
Contributions to changes in socio-economic status: income (SDG 1, 2, 5)	- Income of target beneficiaries has increased with 60% - Positive impact on gender equality and empowerment have been limited	

5. Main Findings, Conclusions, Recommendations, Lessons Learned

5.1. Main Findings

Table 38 Main findings

Evaluative Criteria Questions	Response	Source of info / evidence
Monitoring & Evaluation		
1. Was the M&E at entry designed so that progress for all relevant indicators could be tracked accurately? 2. Was the M&E plan implemented according to plan? 3. Was all data/information available for conducting the ET?	Mostly (Moderately satisfactory) - A results framework with indicators and targets was developed. However, indicators did not fully match those in the GEF Adaptation tracking tool and gender-related indicators and targets were limited. Mostly (Moderately Unsatisfactory) - Inception workshop / report was not produced. - Changes made to the baseline-AMMAR project results framework were not clearly made the GEF project results framework - Other M & E according to plan Mostly (Moderately satisfactory) - Data from inception phase (changes made to baseline) was missing. - Data to complete the GEF adaptation tracking tool was not complete - Date related to gender approach was limited	Section 3.6: Context of ongoing and previous evaluations Table 10 Table 19 Table 27 Project implementation progress report (project results framework)
Implementation and Execution		
4. What were effective processes built into the management structure for self-monitoring and assessment, reporting and reflection? 5. What has been the contribution of partners and other organizations to the outcome, and how effective have IFAD partnerships been in contributing to achieving the outcome? 6. To what extent did the partner organizations work together effectively?	Satisfactory - Government (MEPA) executed project activities with service providers. This was supervised through supervision missions. These were increased after delay was identified. A non-performing service provider was replaced. - Anticipated outcomes have been achieved through government and service providers executing activities - Partner organisations worked together efficiently.	Table 19 Table 20
Assessment of outcomes		
Relevance: How does the project relate to the main objectives of the GEF Focal area, and to the environment and development priorities a the local, regional and national level?		
7. Was the project aligned with national development priorities? 8. Was the project aligned with national and local climate change priorities? 9. Was the project aligned with the GEF focal area objectives? 10. Was the project aligned with SDGs? 11. Did the project complement other initiates?	Satisfactory - The GEF project was aligned with national development priorities - The GEF project was aligned with national climate change priorities and mostly with local priorities - Alignment of the GEF project was satisfactory – highly satisfactory. - The project was aligned with SDGs 1, 2, 5, 6, 13 and 15 - Only reservation was limited consideration of Specific Climate change vulnerabilities and needs, especially those of women.	Table 25 Table 28
Effectiveness: To what extent have the expected outcomes of the project been achieved?		
12. To what extent have outcomes and outputs been achieved or has progress been made towards their achievement? 13. What were the positive or negative, intended or	Satisfactory - The achievement of outcomes and outputs is satisfactory against adjusted targets and Moderately Satisfactory against original targets	Table 26 Table 28

unintended, changes brought about the projects' work?	- Windbreaks were identified as an appropriate approach to climate change-related erosion and is promising for replication / upscaling. - Changes brought to women empowerment could have been more significant.	
Efficiency: Was the project implemented efficiently, in line with international and national norms and standards?		
14. To what extent have the project outputs resulted from economic use of resources? 15. To what extent were quality outputs delivered on time?	Moderately Satisfactory - Taken the achievements, the use of financial and human resources and strategic allocation of resources was efficient and satisfactory, especially against targets adjusted during project implementation. - Despite the initial delays and the disruptions induced by the COVID-19 pandemic the project completed all activities within less than 6 years, which was the original duration foreseen at design before it was reduced to four years upon Government request. Therefore, the timely delivery can be regarded as Moderately Satisfactory	Table 27 Table 28
Sustainability: To what extent are there financial, institutional, socio-political, and/or environmental risks to sustaining long-term project results?		
16. Have financial resources been secured/raised to sustain the project? 17. What policy and regulatory frameworks were put in place to support the continuation of benefits? 18. To what extent has a sustainability strategy, including capacity development of key national stakeholders, been developed or implemented? 19. To what extent have partners committed to providing continuing support? 20. To what extend have outcomes / outputs contributed to environmental sustainability?	Sustainability is likely - Financial resources have been mostly secured to sustain the outcomes of the GEF project. - Instruments and mechanisms have been established and an institutional enabling framework put in place to sustain the project activities / benefits, incl. through the CCNAP (especially relevant for the agriculture sector) and activities of windbreaks and soil conservation with draft laws on these topics. Sustainability of benefits to women is limited. - An exit strategy has been developed and partners committed to sustain the project benefits - Environmental sustainability is especially supported through the windbreak's activities.	Table 30
Impact: What are the long-term impacts of the project?		
21. What are the long-term impacts of the project	- Through the improved irrigation and innovative climate change adaptation agriculture techniques and windbreaks, land erosion will be reduced, also reducing loss of agriculture territory, assets, soil fertility and quality of crops. - This would contribute to reducing loss of agriculture production (and food and water security) and poverty.	Table 37 Table 6 (Theory of change)
Gender equality and women's empowerment: How did the project contribute to gender equality and women's empowerment?		
22. To what extent was gender equality and women empowerment integrated in the project design? 23. How did the project promote gender equality of women in the delivery of outputs? 24. To what extent did the outcomes achieve benefit women and men equally?	- An approach to integrate a gender equality and women empowerment in the project design was limited - Gender equality of women was promoted to access to grants and women farmer leaders. - Outcomes did not fully achieve benefits to women and men equally, as women were underrepresented in some outcomes	Table 15 Gender Responsiveness Table 34

5.2. Conclusions

The Terminal Evaluation conducted gave the project an overall rating of ***satisfactory.*** The project overachieved most of its targets. However, it should be noted that this overachievement is also because of adjustment of target (less ambitious) during project implementation. If these targets would not have been adjusted, the project would have achieved most of its targets.

The most notable strengths of the project include:
- Adaptive management – to respond to the initial delays
- Strong country ownership and linkages to national priorities
- Overachievements of most targets (those adjusted during project implementation)
- Innovation:
    - windbreaks, vermicomposting: identification of windbreaks as an effective response to climate change-related erosion and potential for replication and scale-up
    - M & E system with geo-referenced activities)

The most serious shortcomings of the project include:
- Lack of gender approach/strategy (action plan) and related identification of specific needs (especially climate change adaptation related).
- Lack of clear (from baseline-project separated) baseline (inception) against which achievements could be monitored / evaluated

The greatest achievements in terms of results include:
- Increase of income: 300% of target
- Land brought under climate-resilient practices (riverbank protection and windbreaks): 153% of target
- Policy dialogues: 300% of target
- ToT: 218% of target
- Demonstration plots: 170% of target

The Fewest achievements in terms of results include:
- % Target beneficiaries with increased income > 20 %: 64% of target
- Grants to agribusinesses: 65% of target
- Gender-specific approach/strategy was not developed, which led to limited women specific benefits as response to specific needs.

Table 39 Evaluation ratings overview table

Evaluation area	Criteria	Rating[8]
Monitoring & Evaluation (M&E)		
	M&E design at entry	4
	M&E Plan Implementation	3
	Overall Quality of M&E	4
Implementation & Execution		
	Quality of IFAD Implementation/Oversight	4
	Quality of Implementing Partner Execution	5
	Overall quality of Implementation/Execution	5
Assessment of Outcomes		
	Relevance	5
	Effectiveness	5
	Efficiency	4
	Overall Project Outcome Rating	5

[8] Outcomes, Effectiveness, Efficiency, M&E, I&E Execution, Relevance are rated on a 6-point rating scale: 6 = Highly Satisfactory (HS), 5 = Satisfactory (S), 4 = Moderately Satisfactory (MS), 3 = Moderately Unsatisfactory (MU), 2 = Unsatisfactory (U), 1 = Highly Unsatisfactory (HU). Sustainability is rated on a 4-point scale: 4 = Likely (L), 3 = Moderately Likely (ML), 2 = Moderately Unlikely (MU), 1 = Unlikely (U)

Sustainability (*other rating)[9]		
	Financial resources	3*
	Socio-political/economic	4*
	Institutional framework and governance	4*
	Environmental	4*
	Overall Likelihood of Sustainability	4*
Impact		
	Long-term impact - Contribution to SDG 13: climate action	5
	Long-term impact - Contribution to other relevant SDGs (1,2, 5, 6, 15)	4
	Overall impact	5

5.3. Lessons Learned

A. Project design

- M & E of the GEF project-specific indicators and targets was challenging as the GEF-project results framework was blended with the baseline project; thus, indicators and targets we not clearly distinguished.
- The GEF project indicators were not well-matched with those in the GEF adaptation tracking tool
- The GEF-project results framework was not adjusted after adjustments were made to the baseline project results framework, which resulted in some non-efficient M & E reporting.
- Although a risk of possible slow start of the project was identified at the project design phase, this did not prevent a slow start-up of the project - project extension could have been avoided
- There has been limited consideration of women (and youth) specific needs and concerns, especially climate change adaptation-related, at the project design phase of the project - the development and implementation of a gender action plan at the start could have led to increased benefits to women - project supervision / management could have benefitted from gender expert from the design phase
- The strategy / mechanism to engage famer beneficiaries at start of the project turned out to be non-appropriate / weak - as farmers are mostly not organised in Georgia.
- There was limited interest from agribusinesses for grants
- Access to financing modalities options was limited (only grants/subsidy approach) – there should be a more sustainable solution
- Focus was changed from poorest farmers beneficiaries to commercially active farmers to ensure better effectiveness and sustainability of the project

B. Project implementation

- From land brought under climate-resilient practices, windbreaks are an effective response to climate change-related erosion and a promising solution for replication/upscaling
- Further support may be required to implement and enforce the draft laws on windbreaks and soil conservation effectively
- Although locally useful for farmers to restore their land, the river-bank interventions cannot be labelled as proper Landscape Restoration interventions in a wider scale, as they have been implemented with insufficiently integrated evaluation and planning - future project designs should ensure that wider catchment scale approach for river planning and management are in place (e.g., detailed river basin impact studies) to implement this type of intervention.
- It is not clear how effective O & M budgets (as part of exit strategy), and trainings are on the longer-term
- Demonstration sites supported capacity strengthening of municipal staff and farmers.

[9] Sustainability is rated on a 4-point rating scale: 4 = Likely (L) (There are little or no risks to sustainability), 3 = Moderately Likely (ML) (There are moderate risks to sustainability), 2 = Moderately Unlikely (MU) (There are significant risks to sustainability), 1 = Unlikely (U) (There are severe risks to sustainability)

5.4. Recommendations

Table 40 Recommendations table

Pro	TE recommendation
A	Project design
A.1	Ensure the GEF project results framework (indicators and targets) is additional / distinguishable from the baseline project
A.2	Ensure alignment of the project indicators with those in the GEF adaptation tracking tool
A.3	Ensure that any adjustments made to the baseline project (results framework) are also made / integrated into the GEF project (results framework).
A.4	Ensure mitigation measures to possible risk of slow start of the project are effective and followed-up – delays and extension could have been avoided through well prepared start incl. better design of the baseline-project, supervision and involvement of beneficiaries (mechanisms to do so)
A.5	Ensure women (and youth) specific needs and concerns, especially climate change adaptation-related, are fully identified at project design stage and a gender approach and baseline (i.e. action plan) is developed (with support from gender expert)
A.6	Ensure the process of engaging stakeholders is based / building on possibilities / realities on the ground (e.g. to respond to farmers mostly not being organised in Georgia).
A.7	Assess the interest and possible concerns / barriers of potential beneficiaries for accessing financing modalities (e.g. grants to agribusinesses) before the start of the project to ensure appropriate and impactful project activities are proposed at proposed at the design phase. This would also apply for women and youth.
A.8	Consider more diversified and sustainable access to financing options as the approach under this project was limited to grants/subsidy
A.9.	Assess and identify, before the start of the project, how the highest possible effectiveness and sustainability of the project could be achieved through engagement of different types of beneficiaries, including e.g. the most vulnerable / poorest farmers versus commercially active farmers – or justify selection of beneficiaries with possible less effective and sustainable outcomes.
B	Project implementation
B.1	The investments in the windbreak pilot, combined with its solid contribution to preparing a legal framework for windbreaks, have opened a wide scope for windbreak development country wide. This momentum should be seized as early as possible with the approval of the Law on Windbreaks.
B.2	Identify what actions are needed to implement and enforce the draft laws on windbreaks and soil conservation effectively
B.3	For river-bank interventions / protection to be effective, ensure that future project designs consider a wider catchment scale approach for river planning and management (e.g. detailed river basin impact studies) to implement this type of intervention.
B.4	Consider how O&M budgets and trainings can be effective on the long-term, as municipal budgets and capacities to sustain interventions may not suffice.
B.5	Demonstration sites are recommended for replication as these can effectively support capacity strengthening of municipal staff and farmers.

6. Annexes

A. ToR TE Mission

Table 41 ToR TE mission

MISSION DETAILS	
Country of Assignment/Location:	Georgia
Mission Name:	Agriculture Modernization, Market Access and Resilience (AMMAR): Supervision Mission
Mission Start Date:	15 February 2021
Mission End Date:	5 March 2021
Division/Department:	NEN/PMD
Reports to (name and title):	Vrej Jijyan, Country Director

MISSION COMPOSITION (Team members' full name and specialization)	
Name:	**Specialization:**
Vrej Jijyan	Country Director, NEN
Isabelle Lagaillarde	Team Leader and Rural Development Specialist
Enrico Mazzoli,	Economist and EFA
Renaud Colmant	Temporary Professional Officer (Environment), NEN
Beatrice Gerli	Targeting and gender Specialist

MISSION SCHEDULE
Because of the current travel restrictions due to the COVID-19 outbreak, all the mission contracts for the time being will be issued as fee-only, as the mission will be carried out remotely.

BACKGROUND
1. The Agriculture Modernization, Market Access and Resilience (AMMAR) project of the Government of Georgia, with IFAD funding, aims to raise incomes of smallholder farmers and increase climate resilience through public and private investments in upgrading climate-proof productive infrastructure, enterprises and smallholder farmer production systems and technologies in support of inclusive growth of climate smart agricultural value chains. 2. AMMAR has been designed as a 4-year project; IFAD approved the project in September 2014, with a loan in the amount of approximately US$13.3 million. Counterpart funding amounts to US$1.8 million. The financial package is complemented by grants - US$5.3million (GEF) and US$0.5million (IFAD). It is expected that private farmers and agribusinesses will contribute an estimated US$ 9.8million. The project entered into force in May 2015. 3. The overall goal of the AMMAR project is to sustainably increase incomes and reduce poverty for women and men in rural Georgia. Its development objective is to stimulate private investments in climate-smart agricultural value chains to increase incomes and strengthen resilience of smallholder farmers in selected project areas. The programme is expected to benefit around 10,000 households across the country with an initial focus on four regions and seven value chains, The first Supervision Mission was conducted in July 2016 and evaluated the project performance as moderately satisfactory since implementation progress for AMMAR was lagging behind what had been planned for in the AWPB for 2016; also, the actual expenditures as of 30th June, 2016 stood at 29% versus the planned budget for the first 2 quarters (approx. US$ 205,000 against the planned US$ 710,000). Consequently, three Implementation Support Missions were conducted (December 2016 and April and June 2017). 4. The Mid-Term Review (MTR) of AMMAR was carried out in September 2017 in compliance with its financing agreement and executed and managed jointly by both the GoG and IFAD. The last Supervision Mission was carried out in May 2020 in remote modality, due to the travel restrictions caused by the COVID-19 pandemic.

MISSION OBJECTIVES AND OUTPUTS

The objective of the PCR Mission is to review and assess the performance of AMMAR implementation, to identify the major achievements made as well as challenges encountered during implementation with a view to documenting lessons learned for future interventions. The mission envisages attaining the aforementioned objective through consultations with project management staff and stakeholders involved in the implementation. The mission will use its findings to prepare the PCR to be submitted to IFAD and shared with the Government of Georgia.
The mission shall assess, and document overall project implementation performance and the results achieved. This process calls for an informed reflection on the relevance, effectiveness, efficiency and sustainability of project interventions covering all aspects of project management, value chain development activities, rural finance and agri-firm modernization, and rural infrastructure enhancement (Project Completion Guidelines attached), to discuss with beneficiaries their perception of the project, the level of their participation in, and their benefits from the project interventions.
The mission will participate in the AMMAR online completion workshop, which will gather all stakeholders, including the Government, donor community as well as beneficiaries. The mission will present the project results and lead the discussion on the lessons learnt and implications for future IFAD programme in the country.

INDIVIDUAL RESPONSIBILITIES, EXPECTED OUTPUTS AND REQUIRED COMPLETION DATES	
Full Name of Consultant:	Isabelle Lagaillarde
Expected Start Date of Assignment:	15 February 2021
Expected End Date of Assignment:	15 March 2021
Total number of working days *(max. 240 in a 12-month period)*:	26 days

GENERAL DESCRIPTION OF TASK(S) AND OBJECTIVE(S) TO BE ACHIEVED

Expected Activities:

Ms Isabelle Lagaillarde, Team Leader will provide technical leadership of the mission.
In particular, she will be responsible for the following tasks:

- Assess the relevance and effectiveness of project implementation, or the extent to which project objectives were met, and to document the immediate results and impacts of project interventions.
- Review the project costs and benefits and the efficiency of the overall project implementation process, including IFAD's and partners' performance.
- Assess the prospects of sustainability of project benefits beyond project completion.
- In discussion with the Government and other donors, identify how the project triggered larger investments in value chain development and was replicated and scaled up by other donors
- Generate and document useful lessons from implementation that will help improve IFAD's or Borrower's future programming and designs.
- Identify any potential for the replication or up-scaling of best project practices.
- Assess project cumulative outreach in terms of number of beneficiaries reached, disaggregated by gender and youth, as compared to design estimates.
- Assess the effectiveness of project targeting of the rural poor and women engagement.
- Assess project achievements in relation to the project Components. Assess the extent to which components objectives were met, and to document the immediate results and impacts of project interventions.
- Assess the prospects of sustainability of project benefits beyond project completion.
- Present the findings to the Government and other stakeholders during the completion workshop (Remotely).
- Draft a project completion report in line with IFAD guidelines.
- Undertake any other relevant task as agreed with the Country Director.

KEY PERFORMANCE INDICATORS

Expected Outputs (please include any travel if applicable):	**Required Completion Date:**
Contribution, according to the consultant's specific field of expertise, to the Project Completion Report (PCR) in consultation with project stakeholders and in line with IFAD guidelines.	By 5 March 2021

INDIVIDUAL RESPONSIBILITIES, EXPECTED OUTPUTS AND REQUIRED COMPLETION DATES	
Full Name of Consultant:	Enrico Mazzoli,
Expected Start Date of Assignment:	22 February 2021
Expected End Date of Assignment:	5 March 2021
Total number of working days *(max. 240 in a 12-month period)*:	13 days

GENERAL DESCRIPTION OF TASK(S) AND OBJECTIVE(S) TO BE ACHIEVED

Expected Activities:

Enrico Mazzoli will carry out an Economic and Financial Analysis at completion, recalculating an IRR and proving the efficient allocation of resources. He will also compare expected outputs with actual project deliveries, extracting lessons on effectiveness of the implementation and the overall project strategy.
The consultant will be responsible for the following tasks:

- Review and update assumption on market prices as well as quantities (yields and inputs) applied in the development of each financial model. Recalculating profitability indicators for each model in order to confirm their financial viability and expected impacts.
- Develop new model that reflect activities that were not considered at design or during mid-term in order to properly reflect the theory of change of the implementing project.
- Review and update the economic assumptions of the model mostly in relation with target beneficiaries and adoption rates for each type of intervention, re-calculating project cash flows for net incremental benefits and economic profitability indicators
- Update Logframe using the new EFA results to show the extent to which targets were met.
- Contribute to the write-up of the Completion Report and relevant Annexes where appropriate; and
- Undertake any other relevant to the assignment activity, as requested by the CPM and/or the Team leader.

KEY PERFORMANCE INDICATORS

Expected Outputs (please include any travel if applicable):	**Required Completion Date:**
Contribution, according to the consultant's specific field of expertise, to the Project Completion Report (PCR) in consultation with project stakeholders and in line with IFAD guidelines.	By 5 March 2021

INDIVIDUAL RESPONSIBILITIES, EXPECTED OUTPUTS AND REQUIRED COMPLETION DATES

Full Name of Consultant:	Beatrice Gerli
Expected Start Date of Assignment:	15 February
Expected End Date of Assignment:	5 March
Total number of working days *(max. 240 in a 12-month period)*:	15 days

GENERAL DESCRIPTION OF TASK(S) AND OBJECTIVE(S) TO BE ACHIEVED

Expected Activities:

As part of her overall support to NEN portfolio, the Gender and Targeting specialist will be responsible for assessing AMMAR's relevance, effectiveness, efficiency, impact and sustainability on the project's target groups, including women and youth. She will specifically:

- Assess AMMAR progress and achievement on poverty reduction, income increase, empowerment of women and youth against of the goals set at design and included in the logical framework and Annual Work Plan and Budget.
- Review the actions taken to follow up on the agreements and recommendations of recent supervision, implementation support and follow-up missions.
- Review the appropriateness and effectiveness of the projects' targeting strategies in addressing poverty reduction, women and youth empowerment.
- Assess the appropriateness of the methodologies used for community participation during planning and implementation; assess communities' receptivity to the projects and their level of satisfaction and assessing whether the defined interventions are appropriate to the needs of target communities.
- Identify operational issues and constraints facing project implementation and assess project's efforts to overcome them, as well as adjustments to projects activities, the logframe conducted during the implementation time frame.
- Assess the technical and implementation capacity of the PMU with respect to the activities planned n targeting m gender, youth, human and social capital,
- Draw lessons learned that could influence IFAD's partnership with Georgia, informing the development and implementation of other projects and policy development processes;

KEY PERFORMANCE INDICATORS

Expected Outputs (please include any travel if applicable):	**Required Completion Date:**
Contribution, according to the consultant's specific field of expertise, to the Project Completion Report (PCR) in consultation with project stakeholders and in line with IFAD guidelines.	By 5 March 2021

INDIVIDUAL RESPONSIBILITIES, EXPECTED OUTPUTS AND REQUIRED COMPLETION DATES

Full Name of Consultant:	Renaud Colmant
Expected Start Date of Assignment:	

Expected End Date of Assignment:	
Total number of working days *(max. 240 in a 12-month period)*:	

GENERAL DESCRIPTION OF TASK(S) AND OBJECTIVE(S) TO BE ACHIEVED

Expected Activities:

The Environment specialist will be responsible for assessing the relevance, effectiveness, efficiency, impact and sustainability of GEF- funded activities under AMMAR. He will specifically:

- Assess the technical and financial progress of the GEF-funded activities under AMMAR since the approval of the Grant Agreement, including alignment with GEF policies and strategies, attainment and measurement of global environmental benefits and co-financing.
- Assess the progress made against the projects objectives concerning the GEF funding, logical framework, Annual Work Plan and Budget, Procurement Plan and synthesizing lessons learned influencing other projects and for informing policy development processes.
- Review the actions taken to follow up on the agreements and recommendations of recent supervision, implementation support and follow-up missions.
- Review the appropriateness and effectiveness of the projects' targeting strategies in addressing poverty reduction and environmental degradation in the project's areas.
- Assess the appropriateness of the methodologies used for community participation during planning and implementation; assess communities' receptivity to the projects and their level of satisfaction and assessing whether the defined interventions are appropriate to the needs of target communities.
- Identify operational issues and constraints facing project implementation and make specific recommendations to overcome them, as well as adjustments to projects activities, the logframe and to the PIM if necessary.
- Assess the technical and implementation capacity of the PMU with respect to the activities planned, identifying capacity building needs for the remainder of the implementation period and propose needed adjustments.
- Review the financing agreement and subsidiary agreements for compliance and make appropriate recommendations if amendments and reallocation of funds are needed

KEY PERFORMANCE INDICATORS

Expected Outputs (please include any travel if applicable):	**Required Completion Date:**
Contribution, according to the consultant's specific field of expertise, to the Project Completion Report (PCR) in consultation with project stakeholders and in line with IFAD guidelines.	By 5 March 2021

Please note add further INDIVIDUAL RESPONSIBILITIES, EXPECTED OUTPUTS AND REQUIRED COMPLETION DATES tables as required.
Clearance by COM if TORs include communication activities (see section 4.7.iii):

Name: …… **Signature:** …… **Date:** ……

Clearance by ACD if TORs include financial management responsibilities:

Name: …… **Signature**: …… **Date:** ……

Full Name:	Joris Oele
Specialization:	Environment
Expected Start Date of Assignment:	1 April 2021
Expected End Date of Assignment:	31 December 2021
Total number of days of service (max. 240 in a 12-month period):	45
Division/Department:	NEN
Location:	Home-based
Reports to (name and title):	Nicolas Tremblay, Lead Regional Environment and Climate Specialist, ECG/NEN

GENERAL DESCRIPTION OF TASK(S) AND OBJECTIVE(S) TO BE ACHIEVED

Expected Activities: Preparation of Georgia ERASIG Terminal Evaluation Report (GEF); Preparation of Iraq BRAC first PPR (AF); Finalization of Georgia Windbreaks Concept Note (GCF)

Introduction

Preparation of Georgia ERASIG Terminal Evaluation Report (GEF) *20 days of work* - The Enhancing Resilience of Agriculture Sector in Georgia (ERASIG) project funded by the GEF Special Climate Change Fund (SCCF), conceived within the framework of the overall IFAD programme for the Republic of Georgia, has been designed to address the climate change impact and adaptation priorities of the government for the agriculture sector in Georgia (https://www.thegef.org/project/enhancing-resilience-agricultural-sector-georgia-erasig). Its overall goal was to enhance the adaptive capacity of farmers to climate change risks through resilient agriculture systems. The project aimed to demonstrate the adaptation potential of climate-resilient crop production systems and technologies – especially efficient irrigation technologies (EIT) and conservation agriculture (CA) – combined with the rehabilitation and climate-proofing of irrigation schemes and value chain (VC) infrastructures - e.g., improved storage and processing facilities, and greenhouses - in ten selected crop VCs. The implementation of landscape restoration measures aimed to mitigate the impact of climate-related risks such as soil erosion, siltation and floods, damaging both farmland and infrastructures. The project aimed to support multi-stakeholder processes involving all VC actors, knowledge generation and pro-poor farmers' investments leading to a more resilient agriculture production. The project aimed to support the Ministry of Agriculture (MoA) to mainstream CC adaptation into agriculture policies and regulations, to favour the sustainability and upscaling of the intervention supported by the project. The SCCF funding is synergetic to the overall IFAD country programme, and covered additional costs associated with adaptation needs, for a total budget of USD 32.8 million (USD 5.3 million of SCCF funding, USD 26.8 millions of two IFAD loans, and USD 0.7 millions of IFAD grants). The specific project objective was to improve water availability, farmland productivity and smallholders' income through investments in climate-resilient farming systems and VC technologies. The SCCF intervention was built around the following components: (1) On-farm efficient irrigation and soil and water conservation for sustainable agriculture production; (2) Landscape restoration to prevent climate-related risks; (3) Enabling environment for climate-risk reduction in agriculture; (4) Project management. The project ended in 2020 and the TER is now due for submission to the GEF, following internal review by IFAD's Independent Office of Evaluation (IOE).

Preparation of Iraq BRAC first PPR (AF) *5 days of work* – The project Building Resilience of the Agriculture Sector to Climate Change in Iraq (BRAC) was approved for funding in March 2018 and officially started in December 2019 (https://www.adaptation-fund.org/project/building-resilience-agriculture-sector-climate-change-iraq-brac-2/). However, as the Government of Iraq has thus far not met IFAD's conditions for first disbursement, no activities have taken place. The project objective is to strengthen the agro-ecological and social resilience to climate change in the four target governorates (Muthanna, Qadisiya, Missan and Thi Qar), by enhancing water availability and use efficiency, and promoting adaptive agriculture production systems and technologies for improved livelihoods and food security of rural households. The project is designed to deal with one of the major constraints in the country that centres around the growing scarcity of irrigation water and to assist the country with strengthening its capacity at the national level for monitoring climate change patterns and providing relevant information to key stakeholders and farmers to enable them to undertake adaptation and risk mitigation measures through an early warning system. The project consists of two components: (1) Capacity development to integrate CC adaptation and risk reduction into agriculture planning and production systems; (2) Climate-resilient agriculture investments. Although no activities took place, a PPR is due for submission to the Adaptation Fund.

Finalization of Georgia GCF Windbreaks Concept Note *20 days of work* – The Government of Georgia requested IFAD to act as Accredited Entity to the GCF for a proposal to rehabilitate windbreaks in agricultural areas of Eastern Georgia. With funding from UNCCD, the Government prepared a first draft of the Concept Note. The proposal builds inter alia on IFAD's previous work on windbreaks through the AMMAR project (linked to the abovementioned GEF-funded ERASIG). While the Concept Note proposes relevant solutions, in line with IFAD's mandate and comparative advantage, additional work is required to ensure that it is well aligned to IFAD's new investment in Georgia (Dairy Modernisation and Market Access Project, DiMMA) that would provide cofinancing, and that it meets IFAD's strict quality requirements. Finalization of the Concept Note has now been handed over to IFAD, for submission to the GCF Secretariat. The decision

Expected Activities

Preparation of Georgia ERASIG Terminal Evaluation Report (GEF)

- Provide a comprehensive and systematic account of the performance of the GEF-funded ERASIG by assessing its design, implementation, and achievement of objectives.
- Review all project documents and reports and collect all information deemed necessary to understand and analyse the project implementation achievements and failures, management and implementation capacities, structure and sustainability.
- Prepare the ERASIG terminal evaluation report in line with the Guidelines for GEF Agencies in Conducting Terminal Evaluation for Full Sized Projects, which includes sections on General Information, Project Theory of Change, Assessment of Project Results, Outputs, Outcomes, Sustainability, Progress to Impact, Assessment of Monitoring & Evaluation Systems, Assessment of Implementation and Execution, Other Assessments and Lessons and Recommendations.
- Address any comments raised by the GEF Independent Office of Evaluation on the draft Terminal Evaluation Report.
- If necessary and related to the GEF-funding, undertake any other task assigned by the IFAD Country Director.

Preparation of Iraq BRAC first PPR (AF)

- Get acquainted with the background of the BRAC project and challenges in the first year of implementation.
- Draft the first PPR, on the basis of all available information (project document & logframe, inception report, Annual Work Plan and Budget, conversations with the Country Director and PMU), in line with applicable AF guidelines.
- Address any comments raised by IFAD and the PMU.
- Address any comments raised by the AF following first submission, until the PPR is acknowledged as satisfactory.

Finalization of Georgia GCF Windbreaks Concept Note

- Review the draft Concept Note, all background documentation informing it and IFAD's observations for further enhancement.
- Get acquainted with the IFAD-funded DiMMA and its AF-funded DiMMAdapt component, to be considered as co-financing for the GCF windbreak concept note. Additional sources of co-financing may be identified in collaboration with the Government.
- On the basis of IFAD guidance, and in line with applicable GCF policies and guidelines, substantially re-draft the Concept Note, including its theory of change and budget to ensure it meets IFAD quality standards and provides a better fit with the DiMMA/DiMMAdapt "baseline investment".
- Attend coordination meetings with the Government of Georgia as/when required.
- Address any comments raised by IFAD and the Government.
- Address any comments raised by the GCF following first submission of the Concept Note.

KEY PERFORMANCE INDICATORS

Expected Outputs (please include any travel if applicable):	**Required Completion Date:**
Georgia ERASIG Terminal Evaluation Report (GEF)	
- ERASIG TER First Draft – Submitted to IFAD (ECG/NEN)	30 April 2021
- ERASIG TER Second Draft (cleared by ECG/NEN) – Submitted to IFAD (IOE)	31 May 2021
- ERASIG TER Third Draft – Revised following IFAD IOE Review	31 July 2021
- ERASIG Final TER (cleared by IFAD IOE) – Submitted to GEF	30 September 2021
Iraq BRAC first PPR (AF)	
- BRAC PPR First Draft – Submitted to IFAD (ECG/NEN)	15 April 2021
- BRAC PPR Second Draft (cleared by ECG/NEN) – Submitted to the AF Secretariat	30 April 2021
- BRAC Final PPR – Revised following AF Secretariat Review and accepted	30 May 2021
Georgia GCF Windbreaks Concept Note	
- Windbreaks CN First Draft – Submitted to IFAD (ECG/NEN) and Government	31 May 2021
- Windbreaks CN Second Draft (cleared by ECG/NEN and endorsed by Government) – for IFAD internal QA process	31 July 2021
- Windbreaks CN Third Draft – Revised following IFAD internal QA process – Submitted to the GCF Secretariat	30 September 2021
- Windbreaks CN Final – Revised following GCF feedback - Resubmitted to the GCF and endorsed	30 November 2021

Clearance by COM if TORs include communication activities (see section 4.7.iii):

Name: …… **Signature:** …… **Date:** ……
Clearance by ACD if TORs include financial management responsibilities:
Name: …… **Signature:** …… **Date:** ……

B. Missions' itinerary

Table 42 Mission itinerary

#	Type of Mission	Start Date	End Date
1	GEF Supervision Mission	28/02/2016	05/03/2016
2	Implementation Support/Follow Up Mission 1	17/04/2016	26/04/2016
3	Supervision Mission 1	03/07/2016	22/07/2016
4	Implementation Support/Follow Up Mission 2	30/11/2016	16/12/2016
5	GEF Supervision Mission 2	01/03/2017	07/03/2017
6	Implementation Support/Follow Up Mission 3	05/06/2017	17/06/2017
7	Mid-Term Review 1	10/09/2017	23/09/2017
8	GEF Supervision Mission 3	17/11/2017	26/11/2017
9	Supervision Mission 2	14/05/2018	26/05/2018
10	Supervision Mission 3	03/06/2019	14/06/2019
11	Implementation Support/Follow Up Mission 4	20/10/2019	26/10/2019
12	Remote supervision mission 1	08/05/2020	19/05/2020
13	TE mission (remotely)	22/02/2021	05/03/2021

C. List of people interviewed[10]

Table 43 List of people interviewed

Name	Title	Institution
Lali Durmishidze	Project Manager	AMMAR PMU
Ketevan Sharabidze	Deputy Project Director	AMMAR PMU
Nino Kizikurashvili	GEF Coordinator	AMMAR PMU
Ekaterine Gurgenidze	Gender Focal Point	AMMAR PMU
Tamar Tsintsadze	M&E Officer	AMMAR PMU
Levan Tskhovrebashvili	Engineer	AMMAR PMU
Yana Samkharadze	Procurement Specialist	AMMAR PMU
Nino Tatishvili	Financial Management Specialist	AMMAR PMU
Rusudan Khachidze	Disbursement/Accounting Specialist	AMMAR PMU
Tornike Latatia	Grant Consultant	AMMAR PMU
Giorgi Kalandadze	Dty Project Director WB projects	WB/MEPA
Tornike Kapanadze	Grants Project Manager	ARDA
Tamaz Dundua	Programme Manager	ELKANA
Sophie Akhobadze	Regional Director	RECC
Gabo Mazmishvili	Head of Shida Kartli Office	Georgia Amelioration Company
Shorena Lobjhanidze	Head of municipality	Georgeti Municipality
Mogeli Koblianidze	Head of municipality	Kitnisi Municipality
David Pirskheleishvili	Flowers greenhouse - Guria	Window I grantee
Rusudan Kupreishvili	greenhouse for green (rucola) - Kakheti	Window I grantee
Meri nikoleihvili	honey production - Imereti	Window I grantee
Giga Svirava	vegetable greenhouse - Samegrelo	Window I grantee
Marina Mgeladze	laurel leave production - Adjara	Window II grantee
Alika Gvasalia	Strawberry Cooperative - Samegrelo	Window I grantee

[10] Due to the COVID-19 pandemic, this mission was undertaken on a remote basis and all contacts took place through zoom meetings, emails, whatsapp or phone + satellite imagery

D. List of documents reviewed

- GEF documents
    - PIF ERASIG
    - Request of CEO endorsement ERASIG
    - Project document ERASIG
- ERASIG documents
    - Project document (2014)
    - Project Implementation Report (2016)
    - Project Implementation Report (2017)
    - Project Implementation Report (2018)
    - Project Implementation Report (2019)
    - Project Implementation Report (2020)
- AMMAR / ERASIG documents
    - Project design Report (2014)
    - Project baseline survey (2015)
    - Project Implementation Manual (2015)
    - Project Workshop reports (2015)
    - Project Implementation Supervision Mission Report (2016)
    - Project Implementation Supervision Mission Report (2017)
    - Project Supervision Report (2016)
    - Project Supervision Report (2018)
    - Project Mid-term review (2018)
    - Project Exit strategy (2020)
    - Project Progress Report (2020)
    - Project Completion Report (2021)
    - Project Impact Survey (2021)
    - 'Windbreak' documents

E. TE Rating scales

Table 44 TE rating scales

<table>
<tr><th>Ratings for Outcomes, Effectiveness, Efficiency, M&E, I&E Execution</th><th>Sustainability ratings:</th><th>Relevance ratings</th></tr>
<tr><td rowspan="3">6: Highly Satisfactory (HS): no shortcomings
5: Satisfactory (S): minor shortcomings
4: Moderately Satisfactory (MS)
3. Moderately Unsatisfactory (MU): significant shortcomings
2. Unsatisfactory (U): major problems
1. Highly Unsatisfactory (HU): severe problems</td><td rowspan="3">4. Likely (L): negligible risks to sustainability
3. Moderately Likely (ML):moderate risks
2. Moderately Unlikely (MU): significant risks
1. Unlikely (U): severe risks</td><td>2. Relevant (R)</td></tr>
<tr><td>1.. Not relevant (NR)</td></tr>
<tr><td>Impact Ratings:
3. Significant (S)
2. Minimal (M)
1. Negligible (N)</td></tr>
<tr><td colspan="3">Additional ratings where relevant:
Not Applicable (N/A)
Unable to Assess (U/A</td></tr>
</table>

F. Evaluation Question Matrix

Table 45 Evaluation questions matrix

Evaluative Criteria Questions	Indicators	Sources	Methodology
Monitoring & Evaluation			
1. Was the M & E at entry designed so that progress for all relevant indicators could be tracked accurately? 2. Was the M & E plan implemented according to plan? 3. Was all data / information available for conducting the ET?	- Clear indicators established at entry? - Indicators for all relevant evaluation criteria established at entry - Evidence M & E plan implementation - Missing data / documents relevant for M & E	- Project document - Project team - Data reported in project reports - Data reported MTR report	- Reports review - Interview with stakeholders and experts
Implementation and Execution			
4. What were effective processes built into the management structure for self-monitoring and assessment, reporting and reflection? 5. What has been the contribution of partners and other organizations to the outcome, and how effective have IFAD partnerships been in contributing to achieving the outcome? 6. To what extent did the partner organizations work together effectively?	- Quality of results-based management reporting (progress reporting, monitoring and evaluation) - Evidence that particular partnership/linkages will be sustained - Evidence of internal project reporting and assessment - Project level planning / strategies	- Project document - Project team - Data reported in project reports - Data reported MTR report	- Reports review - Interview IFAD staff
Assessment of outcomes			
Relevance: How does the project relate to the main objectives of the GEF Focal area, and to the environment and development priorities a the local, regional and national level?			
7. Was the project aligned with national development priorities? 8. Was the project aligned with national and local climate change priorities? 9. Was the project aligned with the GEF focal area objectives? 10. Was the project aligned with SDGs? 11. Did the project complement other initiates?	- Consistency with national strategies and policies - Strength and weakness of project design and approach - Consistency with Georgia's strategic objectives - Coherence between project design and implementation approach, specific activities conducted	- Project documents - National policies or strategies - Ifad staff - Project team - Data collected throughout the TE mission - Impact survey	- Desk / Document analysis - Interviews with IFAD staff - interviews with project team and relevant stakeholders
Effectiveness: To what extent have the expected outcomes of the project been achieved?			
12. To what extent have outcomes and outputs been achieved or has progress been made towards their achievement? 13. What were the positive or negative, intended or unintended, changes brought about the projects' work?	- Evidence of activities carried out in project reports - Evidence of outputs / results in project reports cross-checked with field visits - Types/quality of approaches or methods utilized	- Indicators in project document results framework - Project documents - Project team - Data reported in project reports - Field evaluation data - Impact survey	- Desk / Document analysis - Interviews with IFAD staff - interviews with project team and relevant stakeholders
Efficiency: Was the project implemented efficiently, in line with international and national norms and standards?			
14. To what extent have the project outputs resulted from economic use of resources? 15. To what extent were quality outputs delivered on time?	- Availability and quality of financial and progress reports	- Project documents - Project team - Data reported in project reports	- Desk / Document analysis - Interviews with IFAD staff

	- Timeliness and adequacy of reporting provided - Level of discrepancy between planned and utilized financial expenditures - Planned vs. actual funds leveraged	- Field evaluation data - Impact survey -	- interviews with project team and relevant stakeholders
Sustainability: To what extent are there financial, institutional, socio-political, and/or environmental risks to sustaining long-term project results?			
16. Have financial resources been secured / raised to sustain the project? 17. What policy and regulatory frameworks were put in place to support the continuation of benefits? 18. To what extent has a sustainability strategy, including capacity development of key national stakeholders, been developed or implemented? 19. To what extent have partners committed to providing continuing support? 20. To what extend have outcomes / outputs contributed to environmental sustainability?	- Effect of approaches used by the project team - Level of stakeholder involvement Specific roles assigned to stakeholders especially women - Evidence of increased technical capacities of county-level and national staff and are likely to be maintained.	- Project documents - Project team - Data reported in project reports - Field evaluation data - Impact survey - Exit strategy	- Key Informant Interviews with experts, implementing partner staff - Secondary data provided by implementing partners
Impact: what was the long-term impact of the project			
21. What are the long-term impacts of the project	- Evidence of SDG-related impact on lives and livelihood - Evidence of unintended impact in counties (both positive & negative)	- Project reports and evaluation - Project partners and relevant stakeholders - Interviews - Impact survey	- Reports review - Interview with stakeholders and experts
Gender equality and women's empowerment: How did the project contribute to gender equality and women's empowerment?			
22. To what extent was gender equality and women empowerment integrated in the project design? 23. How did the project promote gender equality of women in the delivery of outputs? 24. To what extent did the outcomes achieve benefit women and men equally?	- Evidence of gender and human rights in project document - Outcome achieved reported considering gender - Number of women involved in the implementation of project.	- Project documents and reports - Field data collected - Project team	- Project document review - Interviews with primary stakeholders

G. GEF Adaptation tracking tool

*Table 46 GEF adaptation tracking tool *only field with relevant indicators completed. Indicators added at MTR in green.*

Indicator		Metric	Target at CE endorsement		Baseline		Actual at MTR		Actual at completion	
Outcome 1.2: Reduced vulnerability in development sector										
1.2.4	Increase in water supply targeted areas	Tons/m3					2600 ha of land irrigated		6486 ha of land irrigated	
1.2.5	Increase in agricultural productivity in targeted areas	Tons/ha	50% increase in crop yields (1.92 t/h beans dry; 3 t/hazelnut; 5.4 t/h apples; 17 t/h potatoes)						60% increase of income compared to 2017	
1.2.8	% Change in projected food production in targeted area given existing and projected climate change	% Change of food production (measured in tons/year)	20 %							
1.2.10	% Change in income generation in targeted area given existing and projected climate change	% Change in income (US $)	20 %						60% increase of income compared to 2017	
1.2.11	% Of population with access to improved flood and drought management	% Of population disaggregated by gender	Female: 30 %	Male: 70 %	Female: 52%	Male: 48%	48 %	52%	48 %	52%
1.2.14	Vulnerability and risk perception index (Score) - Disaggregated by gender	score	Female: 4-low vulnerability	Male: 4-low vulnerability	Female: 2-high vulnerability	Male: 2-high vulnerability			Female: 4-low vulnerability	Male: 4-low vulnerability
Output 1.2.1: Vulnerable physical, natural and social assets strengthened in response to climate change impacts, including variability										
1.2.1.2	Resilient infrastructure measures introduced to prevent economic losses	Type and level	Type: Climate-proof irrigation infrastructure	Level: Increased 4,750 ha of irrigated land; 3,500 farmers benefiting	Type: Climate-proof irrigation infrastructure	Level: To be defined in selected VC cluster areas (baseline survey)	Type: Climate-proof irrigation infrastructure	Level: 2600 ha	Type: Climate-proof irrigation infrastructure	Level: 6486

				from rehabilitated irrigation infrastructure						
			Value chain infrastructure (e.g., Greenhouses; storage facilities; certified testing laboratory)	USD 700,000 of incremental annual benefits	Value chain infrastructure	To be defined in selected VC cluster areas (baseline survey)				
1.2.1.3	Climate resilient agricultural practices introduced to promote food security	Type and level	Type: Conservation Agriculture systems and technologies	Level: Increased 4,750 ha	Type: Conservation Agriculture systems and technologies	Level: To be defined in selected VC cluster areas (baseline survey)	Type: Climate smart agriculture systems and technologies	Level: 1028 ha	Type: Conservation Agriculture systems and technologies	Level: 6486 ha
1.2.1.5	Sustainable water management practices introduced to increase access to irrigation water under existing and projected climate change	Type and level	Type: Drip & sprinkler irrigation	Level: increased 4,750 ha	Type: Drip and sprinkler irrigation	Level: To be defined in selected VC cluster areas (baseline survey)	Type: Result of rehabilitated irrigation canals	Level: 2600 ha	Type: Result of rehabilitated irrigation canals	Level: 6486 ha
Outcome 2.1: Increased knowledge and understanding of climate variability and change-induced risks at country level and in targeted vulnerable areas										
2.1.1.	Relevant risk information disseminated to stakeholders (yes/no)	Yes=1, No=0	Yes: 1		No: 0		Yes: 1		Yes: 1	
Output 2.1.2.: Systems in place to disseminate timely risk information										
2.1.2.1	Type and No. of monitoring systems in place	Number and type of monitoring systems	Number: Monitoring system for 10 crop VC	Type: Crop production plans based on CC modelling for selected crops						
Outcome 2.2: Strengthened adaptive capacity to reduce risks to climate-induced economic losses										
2.2.1	No. and type of targeted institutions with increased	Number and Type					Number: 6	Type: municipalities	Number: 12	Type: municipalities

	adaptive capacity to reduce risks of and response to climate variability									
Output 2.2.1: Adaptive capacity of national and regional centres and networks strengthened to rapidly respond to extreme weather events										
2.2.1.1	No of staff trained on technical adaptation themes (disaggregated by gender)	Training for famers and trainers					Female: 261	Male: 834	Female: 728	Male: 1851
		Improved resilience of agr. systems					Female: 191	Male: 1251	Female: 587	Male: 1491
		Strengthening infrastructure					Female: 1918	Male: 1170	Female: 1918	Male: 1170
		Erosion control/soil water conservation					Female: 4	Male: 57	Female: 422	Male:1182
Outcome 2.3: Strengthened awareness and ownership of adaptation and climate risk reduction processes at local level										
2.3.1	% Of targeted population awareness of predicted adverse impacts of climate change and appropriate responses	Score	Female: 3-high awareness	Male: 3-high awareness	Female: 1-no awareness	Male: 1-no awareness	Female: 2	Male: 3	Female: 3-high awareness	Male: 3-high awareness
2.3.2	% Of population affirming ownership of adaptation processes	% Of population affirming ownership disaggregated by gender	Female: 15%	Male: 33 %	Female: 0	Male: 0			Female: 56%	Male: 55 %
Output 2.3.1: Targeted population groups participating in adaptation and risk reduction awareness activities										
2.3.1.1	Risk reduction and awareness activities introduced at local level.	Type and score	Type: Community-based Adaptation	Scope: 150 landscape restoration plans based on multi-stakeholder processes; at least 3,000 smallholder	Type: Community-based Adaptation	Scope: No adaptation plans and no trained VC actors on CC adaptation	Type: Community-based Adaptation	Scope: 3 LR Plan; 1028 Trained farmers.	Type: Community-based Landscape Restauration Plans	Scope: 42 LRPs; 2470 trained farmers

				farmers and VC actors trained on EIT and CA through multi-stakeholder processes						
			Type: Adaptive capacity development for local extension agents	Scope: At least 50 extension and mechanization service centres and agrobusinesses formed and supporting farmers with climate-resilient knowhow, inputs and equipment in target areas	Type: Adaptive capacity development for local extension agents	Scope: No local extension service centres formed in CC adaptation issues	Type: Adaptive capacity development for local extension agents	Scope: 67 participants of trainings for trainers	Type: ToT	109
			Type: Adaptive capacity development for farmers and herders	Scope: At least 50,000 farmers/herders (1/2 women) participate in on-farm demonstration trial on CC adaptation farming practices	Type: Adaptive capacity development for farmers and herders	Scope: No on-farm demonstration trials on CC adaptation farming practices				
			Type: Improved resilience of agriculture systems	Scope: 50% increase in yields due to climate-resilient cropping systems (EIT; CA) reduction of 20% of soil	Type: Improved resilience of agriculture systems				Type: Demo plots with EIT and CA	17

				evaporation losses due to CA cropping systems and technologies						
			Type: Microfinance	Scope: The volume of services and inputs from private service providers and used by farmers in target in target VC cluster areas increases by 20% over current levels	Type: Microfinance	Scope: No microfinance for climate-resilient investments			Type: microfinance	0
			Type: Erosion control/Sustainable land and water management	Scope: 60-90% reduction of soil loss under CA agriculture systems	Type: Erosion control/Sustainable land and water management				Type: 320 ha riverbank protection and 2,759 ha windbreaks protected area	3079 ha
			Type: Irrigation system	Scope: Efficient irrigation technologies on 4,750 ha, benefiting 3,500 households	Type: Irrigation system		Type: Irrigation system	Scope: 2600 ha, benefiting 2045 HH	Type: Irrigation system	6486 ha
			Type: Strengthening infrastructure	Scope: 4,750 ha (3,500 smallholder farmers) benefiting from climate-proof irrigation infrastructure; 1,060 smallholder farmers	Type: Strengthening infrastructure	Scope: No climate-resilient infrastructures			Type: Strengthening infrastructure	Scope: 6486 ha

				benefiting with annual income increase from 1.4% up to 5% in 20-yr perspective; USD 700,000 of incremental annual benefits in total from improved VC-related infrastructure						
2.3.1.2	No. and type of community groups trained in climate change risk reduction	Number and Type	Number: 50	Type: Extension and mechanization service centres; agribusinesses ; cooperatives	Number: 0		Number: 67	Type: ToT	Number: 109	Type: ToT
			Number: 1000	Smallholder farmers	Number: 0		Number: 1028	Farmers	Number: 2470	Farmers
			Number: 1000	VC actors (farmers, agribusinesses and input/service providers	Number: 0				Number: 2470	Farmers
Outcome 3.1: Successful demonstration, deployment, and transfer of relevant adaptation technology in targeted areas										
3.1.1.	% Of targeted groups adopting adaptation technologies by technology type	% Disaggregated by gender	Female: 15 %	Male: 33 %	0	0			Female: 15 %	Male: 37 %
		Efficient Irrigation Technologies (e.g. Drip irrigation)	Female: 15 %	Male: 33 %	0	0			Female: 15 %	Male: 37 %
		Climate-resilient farming practices	Female: 15 %	Male: 33 %	0	0			Female: 15 %	Male: 37 %
Output 3.1.1: Relevant adaptation technology transferred to targeted groups										

3.1.1.1	Type of adaptation technologies transferred to targeted groups.	Type	Efficient Irrigation Technologies (e.g. Drip irrigation)				Drip irrigation systems, Greenhouses, Anti-hail nets, Bio-fertilizers.		Drip irrigation systems, Greenhouses, Anti-hail nets, Bio-fertilizers.	
			Climate-resilient farming practices (e.g., Conservation agriculture, crop rotation, integrated pest management; climate-resilient crop varieties)						Climate-resilient farming practices (e.g., Conservation agriculture, crop rotation, integrated pest management; climate-resilient crop varieties)	
3.1.1.2	Type of relevant climate change adaptation technology implemented in selected areas by participatory stakeholders	Number of Households	Type technology : Efficient Irrigation Technologies	No of HH: 4750	0		Type: EIS	No of HH: 2045	Type: EIS	4864 HH
			Type technology: Climate-resilient farming practices	No of HH: 4750	0				Type: CA	1410 HH
Outcome 3.2: Enhanced enabling environment to support adaptation-related technology transfer										
3.2.1	Policy environment and regulatory framework for adaptation-related technology transfer established or strengthened	Score	4-Policy/regulatory framework for adaptation-related technology transfer have been formally adopted by the Government but have no enforcement mechanism				3-Policy/regulatory framework for adaptation-related technology transfer have been formally proposed but not adopted		3-Policy/regulatory framework for adaptation-related technology transfer have been formally proposed but not adopted	
3.2.2.	Strengthened capacity to transfer appropriate adaptation technologies	Score	Female-3. High capacity achieved	Male-3. High capacity achieved	Female-1. No capacity achieved	Male-2. Moderate capacity achieved	Female-3. High capacity achieved	Male-3. High capacity achieved	Female-3. High capacity achieved	Male-3. High capacity achieved
Output 3.2.1: Skills increased for relevant individuals in transfer of adaptation technology										
3.2.1.1	No. of individuals trained in adaptation-related technologies	Number of individuals disaggregated by gender	Female: 1425	Male: 3325	Female: 0	Male: 0	Female: 248	Male: 780	Number: 692	Male: 1778
Output 3.2.2: Relevant policies and frameworks developed and adopted to facilitate adaptation technology transfer										
3.2.2.1	No. of policies developed or strengthened	Number of policies					0		3	

H. Project implementation progress report (project results framework)

Table 47 Project implementation progress report

Outcome / output	Indicators	Unit	Baseline	Cumulative Performance			Comments and reference
				Project Target	Actual	%	
Goal: Enhancing the adaptive capacity of farmers to climate risks through resilient agricultural systems.	- Trends in irrigation of resilience of agriculture systems	%		NA	75	NA	According to the Impact survey 75% of target beneficiaries improved their access to irrigation system
	- 10,000 supported HH	Nr HH		10,000	17,016	170	AMMAR completion report and impact survey
Objective: Improve water availability, farmland productivity, and smallholders' income through investments in climate-resilient farming systems and VC technologies.	- Increase of >20% real net household farm income for at least 80% of the 10,000 supported households. -	%		80	51	64	AMMAR completion report and impact survey
	- Increase income from agriculture production.	Value		> 20%	60%	300	According to the impact survey the increase of income from agriculture production was 60%, compared to 2017.
	- Climate - resilient agriculture production practices are adopted by trained smallholder farmers (disaggregated by gender and age).	%		>50 %	55	110	Percentage of fully or partially applied knowledge and techniques acquired during the trainings by participants
		% Female		NA	56	NA	56% of women participants adopted knowledge and techniques acquired during the trainings.
Component 1. On-farm efficient irrigation and soil and water conservation for sustainable agriculture production Total Budget: USD 3,102,000							
***Outcome 1.1**:* On-farm water efficiency and farming practices in irrigation and rained crop production systems are improved */ Contributes to CCA-1*							
Output 1.2.1. At least 4,750 ha in the project areas are managed using efficient irrigation technologies (EIT) and conservation agriculture (CA) systems that enhance yield and water use efficiency for selected crop value chains.	- Ha of land improved - on-farm soil and water conditions through climate-resilient EIT and/or CA	ha		4,750	6486	136	Improved soil and water conditions through rehabilitation of irrigation on-farm canals.
	- Small grants made to farmers and grants made to agribusinesses and processors in target value chains	Nr grants to primary producers		220	227 (19 % women)	103	
		Nr grants to agribusinesses		20	13	65	

Component 2. Landscape Restoration to prevent climate-related risks Total Budget: USD 1,400,000							
Outcome 2.1*:* Landscape restoration plans developed and implemented to prevent climate-related risks (soil erosion, siltation, flooding)*/ Contributes to CCA-1*							
Output 2.1.1. Landscape restoration (LR) plans incorporating climate-resilient infrastructures and vegetation restoration interventions in erosion-risk vulnerable areas are developed and implemented.	- Land brought under climate-resilient practices	ha		2000	3079	153	(320 ha riverbank protection and 2759 ha windbreaks protected area 53.1 km long windbreaks
	- Landscape restoration plans implemented	Nr		8	42	525	2 river-bank protections works (Chumlaki and Giorgeti) and 40 windbreak management plans
Component 3. Enabling environment for climate-risk reduction in agriculture Total Budget: USD 548,000							
Outcome 3.1: Concerned institutions are empowered through capacity building to develop a more conducive policy environment for climate-resilient agriculture and water and soil conservation*/ Contributes to CCA-2*							
Output .1.1. A policy dialogue is triggered to mainstream CC risk reduction into water and soil conservation in agriculture	- Number of civil servants, farmers, - NGO members, extension agents and researchers reporting good knowledge on CC risk reduction measures in irrigated agriculture,	Nr of policy dialogues		1	3	300	NAP; draft law on windbreaks; draft law on soil protection
	- Staff of service providers and regional MoA officers receive ToT on climate resilient EIT/CA for target VC production	Nr staff received ToT		50	109 (27% women)	218	Government officials trained
2.2 At least 1,000 farmers participate in 10 on-farm demonstrations where new irrigation and CA production systems and technologies are tested and validated	- Smallholder farmers trained in climate-resilient farming systems and technologies	Nr of trained individual farmers		1000	2470 (28% women)	247	
	- Demonstration plots on EIT and CA technologies and farming systems provide successful results in soil and water improvements and higher yields from selected VC crops	Nr demonstration plots		10	17	170	All demo plots were financed by GEF and relevant for GEF activities

Table 48 PIR results

	Target in 2016 AWP	Results 2016	Target in 2017 AWP	Results 2017	Target in 2018 AWP	Results 2018	Target in 2019 AWP	Results 2019	Target in 2020 AWP	Results 2020	Total
At least 220 small grants (made to farmers (at least 30% to women and young farmers)											227 (19 % women)
At least 20 grants made to agribusinesses and processors in target value chains	0	0	10	4	20	3	6	4	4	2	13
At least 1000 smallholder farmers trained in CSA technology options and practices	200	103	240	925	775	829	705	522	80	91	2470 (28 % women)
Number and type of target institutions (municipalities) with increased adaptive capacity to reduce risk and responses to climate vulnerability											12 municipalities (locations of demos)*
Number of staff trained on technical adaptation themes (ToT)	15	69	0	0	50	40	0	0	0	0	109 (27 % women)
Type of relevant climate change adaptation technology implemented in selected areas by participatory stakeholders (number of trained	N/A	N/A	N/A	N/A	N/A	N/A	50%	66%	N/A		55% Impact survey - 2021.

farmers who adopted new technologies)											
Increase in water supply target areas	500 ha	360 ha	2000 ha	2240 ha	7991 ha	689 ha	3896 ha	2231 ha	4071 ha	316 ha	650 ha - in 2021. Total 6486 ha of irrigated land
Number of farmers improved soil condition and /or farm water availability (HH)	N/A	0	N/A	300	N/A	368	N/A	742	0	0	1410 HH benefitting from Land Restauration works
Number of Landscape restoration plans	8	3	2	0	1	17	3	22	0	0	42
Relevant policies and frameworks developed and adopted to facilitate adaptation technology transfer	1	0	1	1	1	0	1	1	1	1	3

***Demo plots. Riverbanks, Windbreaks**
Kakheti region: Gurjaani, Sagarejo, Signagi Telavi, Akhmeta
shida kartli region: Gori, Kareli.
Mtskheta region: Kazbegi
Martvili-Samegrelo region: Khobi
Ajara region: Kobuleti

I. GEF project intervention areas

Figure 2 GEF project grants locations

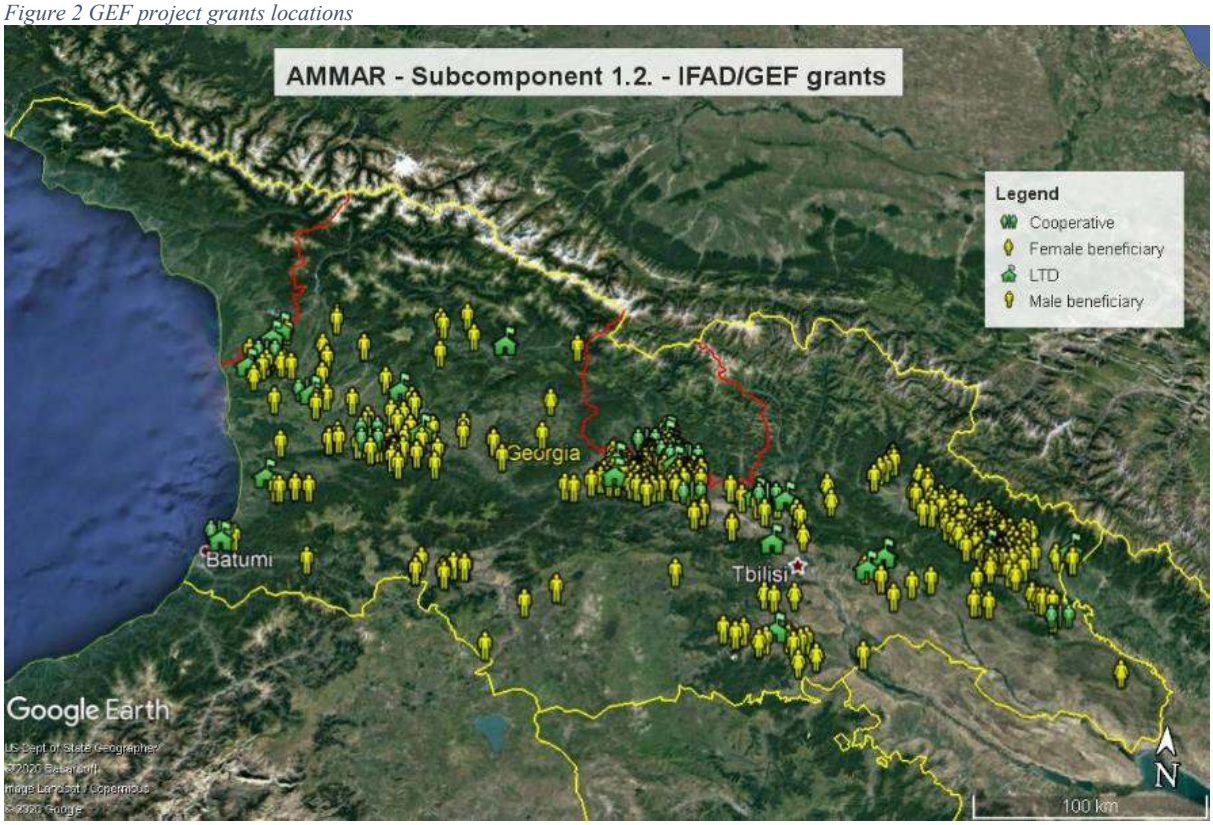

Figure 3 GEF project windbreak locations

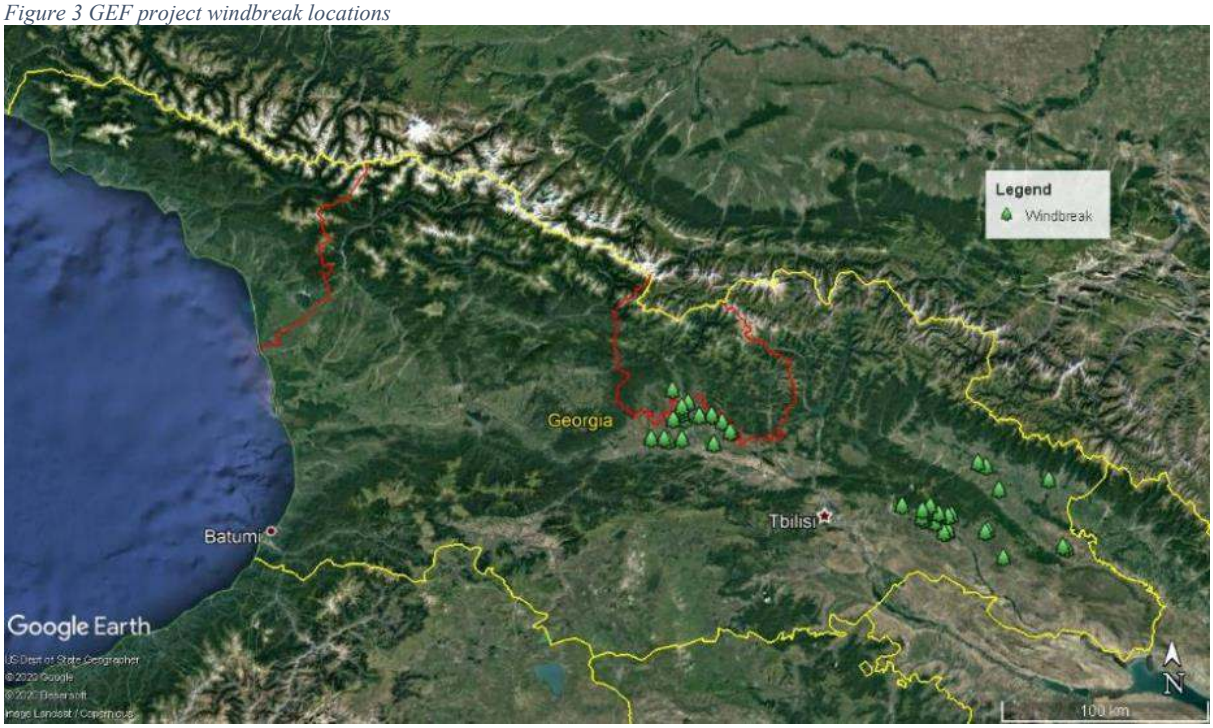

Figure 4 GEF project demo plot locations