

PROJECT EVALUATION SERIES

Final evaluation of the project
**"Climate Change Adaptation to Reduce
Land Degradation in Fragile Micro-
Watersheds located in the
Municipalities of Texistepeque and
Candelaria de la Frontera"**

**GCP/ELS/012/GFF and
GCP/ELS/013/SCF**

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Acronyms and abbreviations

CCA	Climate Change Adaptation
ADESCOS	Community-based Development Associations
AMAT	Adaptation and Monitoring Assessment Tool (SCCF)
CC	Climate Change
CENTA	National Centre of Agriculture, Livestock and Forestry Technology
DGFCR	General Directorate of Forestry, River Basins and Irrigation Management
DGPC	General Directorate for Civil Protection
FFS	Farmer Field School
ELCSA	Latin American and Caribbean Food Security Scale
FAO	Food and Agriculture Organization of the United Nations
DF	Demonstrative family
GEF	Global Environment Facility
GEF	Global Environment Facility
HA	Hectare
MAG	Ministry of Agriculture and Livestock
MARN	Ministry of Environment and Natural Resources
MW	Micro-watershed
MINSAL	Ministry of Health
M&E	Monitoring and Evaluation
INRM	Integrated Natural Resources Management
CPF	Country Programming Framework
SO	Strategic objective (FAO)
OED	FAO Office of Evaluation
PRODOC	Project Document
MTR	Mid-Term Review
DRR	Disaster Risk Reduction
ToC	Theory of Change

Executive Summary

Introduction

- ES1 This report presents the findings, conclusions and recommendations of the final evaluation of the projects GCP/ELS/012/GFF and GCP/ELS/013/SCF "Climate Change Adaptation to Reduce Land Degradation in Fragile Micro-Watersheds located in the Municipalities of Texistepeque and Candelaria de la Frontera" which was approved with a total budget of USD 7 959 370, of which USD 521 370 was from the Global Environment Facility (GEF) and USD 1 000 000 was from the Special Climate Change Fund (SCCF). The remaining and originally planned budget would be provided as co-financing (whether in cash or in-kind) by the Project partners and their national counterparts: USD 6 000 000 from the Ministry of Agriculture and Livestock (MAG) of El Salvador; USD 180 000 from the General Directorate of Forestry, River Basins and Irrigation Management (DGFCR); USD 158 000 from the National Centre of Agriculture, Livestock and Forestry Technology (CENTA) and USD 100 000 from the Food and Agriculture Organization of the United Nations (FAO). The project began operations on 1 November 2014 for a period of three years and was later extended until 3 June 2018 with the same total budget as foreseen.
- ES2 The **Global Environmental Objective** of the project was to contribute to stopping and reversing global trends in land degradation, specifically desertification and deforestation, by promoting sustainable land and water management practices in areas with highly eroded natural resources vulnerable to desertification in the Santa Ana Department, particularly in the micro-watersheds selected. The **Project Development Objective** was to increase and improve the provision of goods and services from agriculture and forestry in a sustainable manner, through the promotion of integrated natural resources management (INRM) and the reduction of land degradation; and to increase the resilience of livelihoods to threats and crises by mainstreaming Climate Change Adaptation (CCA) and Disaster Risk Reduction (DRR) into Fragile Micro-Watersheds Management Plans; with the participation of small-scale farmers.
- ES3 The final evaluation started in May 2018 at the request of the FAO Office of Evaluation (OED) in coordination with the FAO Representation in El Salvador (FAOSV). Field visits were made to the two municipalities participating in the project. The objectives of the evaluation are:
- to assess the relevance of the intervention in relation to the needs and expectations of the beneficiaries (participating municipalities), the Country Development Objectives, the Country Programming Framework and FAO's Strategic Objectives (SO) 2 and 5, and the GEF's objectives LD1 and LD3;
 - to examine the effectiveness of the project in terms of achieving objectives, outcomes, potential impacts and expected outputs as well as its sustainability and efficiency;
 - To identify lessons and key factors in the design, implementation and sustainability of the outcomes so that they may be considered in future

projects or interventions of the GEF or other donors, partners involved, national and departmental counterparts.

Key findings broken down by the GEF's rating and evaluation questions

Overall rating of outcomes: Satisfactory¹

ES4 The project generally managed to fulfil the targets set forth and made a substantial difference to the resilience of the beneficiary communities. Similarly, it has contributed towards improving the environmental surroundings.

Relevance

Evaluation question 1: Were the project strategy and actions appropriate for meeting the needs of all the stakeholders involved in matters of integrated natural resources management and adaptation to climate change, including support for implementing policies and programmes by the Government of El Salvador, for the Country Programming Framework (CPF) and for the FAO Strategic Objectives (particularly SO2 and SO5) and the GEF's objectives LD1 and LD3?

Total relevance rating: Highly Satisfactory

ES5 The project strategy and actions were relevant and appropriate for meeting the needs of all the stakeholders involved in matters of integrated natural resources management and adaptation to climate change, and are aligned to support the implementation of policies and programmes by the Government of El Salvador, the municipalities, in the Country Programming Framework (CPF) and the FAO Strategic Objectives (particularly SO2 and SO5) and the GEF's objectives LD1 and LD3. The project fulfilled the needs prioritised by the communities by means of participatory processes.

ES6 The project design was very ambitious in attempting to achieve the objectives in three years of execution. Introducing and consolidating the concept of micro-watersheds as units of organisation for the planning and management of natural resources and to promote new interinstitutional work methods was the right choice.

Effectiveness

Evaluation question 2: To what extent were the environmental outputs, outcomes and objectives produced and achieved?

Total effectiveness rating: Satisfactory

ES7 The evaluation found that the project fulfilled the outcomes defined in each of its components. Component 1 was evaluated as moderately satisfactory. The interinstitutional coordination the project managed to achieve is worth highlighting, as well as the level of awareness that the different stakeholders - mainly the communities - acquired regarding the adverse impacts of climate change and the appropriate responses to address them.

¹ Overall rating of the project in terms of relevance, effectiveness and efficiency.

- ES8 The evaluation rates components 2 and 3 as satisfactory. The actions implemented by the Project geared towards increasing vegetation cover to protect and conserve the soil and aquifer system, as well as the promotion of integrated natural resources management practices have led to the fulfilment of the objective set forth. Similarly, they have made it possible to increase the quality and availability of water, and for families to have more secure access to a means of livelihood.
- ES9 The evaluation rates the achievement of Outcome No. 4 as moderately satisfactory. The level of awareness among the population regarding the predictable adverse impacts of climate change has increased, and it is adopting measures to address it. However, the population has not improved its condition of vulnerability and the municipal and departmental response mechanisms must be consolidated to respond to extreme weather events.

Efficiency

Evaluation question 3: Have the intervention methods, institutional structure and financial, technical and operational resources and procedures available helped or hindered the achievement of the project outcomes and objectives?

Total efficiency rating: Moderately Satisfactory

- ES10 Most of the intervention methods, institutional structure, resources and procedures used, helped to achieve the project outcomes and objectives with the exception of two aspects: the almost one-year delay to sign the letter of agreement with CENTA and delays in acquiring certain supplies and services that had a negative impact on the performance of the project.
- ES11 A monitoring and evaluation plan and strategy was designed using the baseline and indicators identified in the outcomes matrix. The strategy could not be implemented as foreseen given that the information generated by the monitoring systems of the national institutions were not sufficiently aligned to be able to fulfil all of the project's specific information needs. Certain deficiencies were identified in the quality of outcomes indicators that made it difficult to measure the achievements of some of these. A series of project risks were identified and the respective mitigation measures were incorporated.

Normative values

Evaluation question 4a: To what extent has the Project, in its work with local communities, ensured the participation and empowerment of all the stakeholders in the decision-making process (including the implementation of activities)?

Inclusiveness and participation rating: Highly Satisfactory

- ES12 The project actively promoted the participation and empowerment of all the stakeholders (men and women) in the decision-making process, and paid attention to and involved the groups in the different micro-watersheds. This manifested itself from the design stage and during the rest of the project cycle.

Evaluation question 4b: To what extent has the Project addressed gender equality issues in its design and contributed to the empowerment of women, young people and other vulnerable groups throughout its completion?

Gender rating: Moderately Satisfactory

ES13 The project strategy was to be inclusive, putting families at the centre, as all of the communities that participated were vulnerable. The ProDoc frequently mentions "gender-sensitive approaches" but is not explicit in how that would translate into actions that would need the specific needs and circumstances of women and young people. Halfway through the execution of the Project, the topic of gender equality was promoted in a more comprehensive manner with the support of the Gender Unit of CENTA. Although it was not set forth in the PRODOC, actions were performed that promoted the participation of young people in non-agricultural productive businesses, and actions to protect natural resources.

Sustainability

Evaluation question 5: How sustainable are the outcomes achieved by the project at an environmental, social, financial and institutional level?

Total sustainability rating: Moderately Unlikely

ES14 In general terms, it is very unlikely that the outcomes obtained by the project are sustainable in the medium and long term without additional resources, technical assistance and initiatives to consolidate that achieved. The knowledge and experiences acquired by the beneficiaries have established a starting point but formal and periodic accompaniment is required by the different central and municipal institutions.

ES15 The right mode of execution was used as it was based on the coordinated interinstitutional work and participatory activities in order to promote the sustainability of that achieved. The strengthening of (institutional and community) capacities is another element that contributes towards sustainability to a certain degree. Unfortunately the lack of a comprehensive exit strategy, with the commitments acquired and resources allocated by all of the parties, puts a lot of that achieved at risk, as having had the work experience is not sufficient in itself.

Conclusions and recommendations

ES16 The project succeeded in demonstrating that the use of the micro-watershed approach as an area of action for the implementation of management practices and sustainable use of land and water in areas with highly eroded natural resources vulnerable to desertification is correct, thus deepening the scope of activities. The conceptualisation and design of the project was appropriate and well founded, resulting from a systematic and participatory process. As a result, the strategy and actions of the project were relevant and appropriate to attend to the needs of the stakeholders involved.

ES17 The evaluation concludes that the Project fulfilled the four objectives defined in each of its components. The fulfilment of the targets of component 2 and 3 was satisfactory while the fulfilment of the targets of component 1 and 4 is fairly satisfactory.

ES18 Most of the intervention methods, institutional structure, resources and procedures used, helped to achieve the project outcomes and objectives with the exception of two aspects: the almost one-year delay to sign the letter of agreement with CENTA and delays in acquiring certain supplies and services that had a negative impact on the performance of the project. The quality of implementation by FAO was highly satisfactory due to the technical support provided at all levels.

ES19 Despite the outcomes obtained, it is unlikely that the actions promoted by the project will be sustainable in the medium and long term without additional resources, technical assistance and initiatives to consolidate that achieved.

For FAO (HQ and FAO Representation in El Salvador)

Recommendation 1: Continue with the type of systematic and participatory processes used in the design of the project but improve them in the following aspects:

- Gender and Young People: prepare a strategy that takes a gender-sensitive approach and takes young people into account, with clear methodologies, actions and monitoring. The institution's policies in this area must be integrated with the mechanisms in place to ensure the achievement of the objectives set out therein;
- Management of expectations: to be effective at communication with all stakeholders to ensure that their interest is maintained, while making it clear, among other things, that a long time passes between the period of consultation, design and approval and the date for the potential start of implementation.
- Synergies: Perform a detailed analysis of the partner institutions to identify resources and capacities installed that can complement or reinforce the technical work during the design and implementation of the project (i.e. Gender Unit);
- Efficiency: Incorporate the appropriate resources into the budget (based on a diagnosis of capacities) to guarantee efficient administrative management (i.e. finance and acquisitions);
- Monitoring: include the necessary resources (i.e. specialist) and times to design and make effective a monitoring plan based on quality indicators that provides relevant and useful information, and complement it if required with the systems available in the country;
- Sustainability: request the preparation of a sustainability plan in a timely fashion which must be the responsibility of the highest body in charge of a project (i.e. the Steering Committee) to ensure its implementation.

For the FAO Representation in El Salvador

Recommendation 2: Call upon the Project Steering Committee and the highest municipal authorities to prepare a monitoring and joint support plan (given the lack of a sustainability strategy) to consolidate the progress made. The Office must make the most of new initiatives in the area to incorporate activities that reinforce the outcomes achieved.

Introduction

1. The project "*Climate Change Adaptation to Reduce Land Degradation in Fragile Micro-Watersheds Located in the Municipalities of Texistepeque and Candelaria de la Frontera*", approved in 2014 was a joint effort between several national and local institutions of El Salvador, in collaboration with the Food and Agriculture Organization of the United Nations (FAO), the Global Environment Facility (GEF) and the Special Climate Change Fund (SCCF). The Project Document (ProDoc) considered that, given its implementation was about to end, a final evaluation of the project should take place. This report gathers the findings, lessons learned and recommendations resulting from said evaluation process.

1.1 Purpose of the evaluation

2. The final evaluation has the dual purpose of accountability and learning. Firstly, under the framework of the GEF's requirements, the evaluation assesses the performance, results, probability of the sustainability of these and potential impact achieved by the Project; its relevance for the beneficiaries, and the alignment of such with national needs and priorities. The evaluation also analyses the project design and its monitoring system.
3. The evaluation identifies relevant lessons useful for future projects and proposes a series of recommendations.
4. This evaluation was provided to the following users; FAO, the GEF, the government of El Salvador, the beneficiaries of the communities, the town halls of the micro-watersheds supported, the local organisations and all of the project partners.

1.2 Scope and objectives of the evaluation

5. A Mid-Term Review (MTR) of the project was conducted in June 2017 by an external evaluator, approximately 18 months after having initiated its implementation. The MTR focussed primarily on the micro-watersheds located in Candelaria de la Frontera for reasons that will be explained further on.
6. The final evaluation reviewed the whole period of execution of the project (November 2014 - May 2018) in order to evaluate the implementation process and the outcomes achieved in Candelaria de la Frontera as well as the activities performed in the municipality of Metapán. The evaluation team also analysed the state of implementation of the MTR recommendations.
7. The project sites included in the evaluation cover the micro-watersheds (MW) located in the municipality of Candelaria de la Frontera (MW Santa Gertrudis, El Jute, and Mojarras Blancas) and the communities (El Shiste, La Cañada and Guayabillas) located in the MW El Salitre, in the municipality of Metapán.
8. The main objective of the final evaluation, according to the ProDoc is: "[...] to identify the impact the project has had, the sustainability of the project outcomes and the degree of achievement of the outcomes in the long term. This evaluation also aimed to indicate future actions required to expand the existing project into subsequent

phases, incorporate and improve its outputs and practices, and distribute information to the management authorities to ensure continuity of the processes the project initiated." In addition, the evaluation assesses the progress of the outcomes and potential impact generated by the project, based on the initially foreseen scope, and identifies lessons learned, limiting factors and factors for success in the process, while drawing conclusions and establishing recommendations for future interventions.

9. Other aspects are included in the specific objectives and evaluation questions. In particular, the evaluation:
 - Assesses the relevance of the intervention in relation to the needs and expectations of the beneficiaries (participating municipalities), to the Country Development Objectives, to the Country Programming Framework and to FAO's Strategic Objectives (SO) 2 and 5, and the GEF's objectives LD1 and LD3;
 - Examines the effectiveness of the project in terms of achieving objectives, outcomes, potential impacts and expected outputs as well as its sustainability and efficiency;
 - Identifies lessons and key factors in the design, implementation and sustainability of the outcomes so that they may be considered in future projects or interventions of the GEF or other donors, partners involved, national and departmental counterparts.
10. The evaluation was guided by the questions detailed in table 1. In order to ensure a comprehensive analysis, additional sub-questions were developed in an evaluation matrix during the planning phase (see appendix 4).

Table 1. Evaluation questions

<p>Relevance</p> <p>Question 1 - Were the project strategy and actions appropriate for meeting the needs of all the stakeholders involved in matters of integrated natural resources management and adaptation to climate change, including support for implementing policies and programmes of the Government of El Salvador, into the Country Programming Framework and into the FAO Strategic Objectives (particularly SO2 and SO5) and the GEF's objectives LD1 and LD3?</p> <p>Efficiency</p> <p>Question 2 - Have the intervention methods, institutional structure and arrangements, processes, financial (GEF and co-financing), technical and operational resources and procedures available, helped or hindered the achievement of the project outcomes and objectives?</p> <p>Effectiveness</p> <p>Question 3 - To what extent were the environmental outputs, outcomes and objectives produced and achieved?</p> <p>Normative values</p>

Question 4a - To what extent has the Project, in its work with local communities, ensured the participation and empowerment of all the stakeholders in the decision-making process (including the implementation of activities)?

Question 4b - To what extent has the Project addressed gender equality issues in its design and contributed to the empowerment of women, young people and other vulnerable groups throughout its completion?

Sustainability

Question 5 - How sustainable are the outcomes achieved by the project at an environmental, social, financial and institutional level?

Lessons learned

Question 6 - ¿Which project lessons in terms of design, implementation and sustainability, could be useful for future and similar FAO interventions in El Salvador, and particularly interventions of the GEF and other donors in general?

1.1 Methodology

11. The evaluation followed the norms and standards of the United Nations Evaluation Group (UNEG) and the requirements of the GEF, and adopted a consultative and transparent approach throughout the process. In particular, the process was carried out in close collaboration with the FAO Representation in El Salvador, the project team and the two external evaluators.
12. The evaluation team, under the supervision of the FAO Office of Evaluation, consisted of one national and one international expert. The evaluators prepared an *evaluation matrix* (appendix 4) in order to determine the indicators, assessment criteria, source of information and method to use for each question and sub-question.

The methodologies used were:

- a) Document review: review of key documents including strategic documents of FAO and the national government (policies, laws, etc.), operating plans, half-yearly progress reports, technical reports, among others;
- b) Mapping of Theory of Change: a theory of change was prepared to guide the evaluation analysis and questions to be developed with regard to the project's main activities, outcomes and its potential impact. The theory of change made it possible for the evaluation team to understand the work of the project in a more detailed manner;
- c) Mapping of the stakeholders: in consultation with FAO-OED and FAO-ES the important stakeholders and institutions were identified in order to select those to be interviewed (see appendix 1);
- d) Interviews/focus groups: different stakeholders/beneficiaries at central, municipal and community level were interviewed individually or in groups. The closing event also took place, in which the beneficiaries talked about their experiences;
- e) Questionnaire: to obtain more detailed information from the different members of the project team, a questionnaire based on the matrix questions was used;

- f) Field survey: a field survey was designed and conducted among 307 beneficiary families located in the two municipalities;
- g) Field visits: the team made a series of field visits to both municipalities to ascertain physical progress made and assess the outcomes in situ;
- h) Presentation of preliminary findings: a session took place with the project team in which the preliminary findings, lessons and possible recommendations were presented.

1.1 Limitations

13. The evaluation did not experience limitations due to events external to the project. However, the evaluation experienced the following limitations that reduced opportunities to perform a more detailed analysis:

- a) The minister members of the Project Steering Committee (PSC) were not interviewed due to their multiple obligations;
- b) The mission was conducted at the time of the project's completion when the project team is very busy with closing tasks, which limited the time available for exchanging views with the evaluators;
- c) The project did not monitor the data about different elements (production, health, nutritional changes, loss of trees, increase in income, etc.) in a systematic manner and/or over time.

1.1 Structure of the report

14. The structure of this report follows the format established and agreed upon in appendix 7 of the Terms of Reference (ToR). Section 3 is geared towards presenting the findings of the evaluation with regard to the evaluation criteria and questions established in table 1.

Context and description of the project

2.1 Project context

15. El Salvador is the smallest (21 041 km²) and most densely populated country in Central America (6.3 million people, which equates to 299 inhabitants/km²). It is bordered by the Pacific Ocean, Guatemala and Honduras. According to FAOSTAT (2017) 32.4% of its population lives in rural areas and 67.6% in urban areas. 77% of its land, which equates to 1 602 000 Ha is currently under cultivation (FAOSTAT 2015). El Salvador is a country in the medium human development category according to the Human Development Index (HDI: 0.680) of the UNDP and a ranking of 117 (2017).
16. El Salvador, with its tropical climate, varied topography and geography, has a rich diversity of agricultural and natural ecosystems. Unfortunately, the country is exposed to a range of natural hazards, including changes in climate patterns, extreme weather events related to climate change (CC) and it is in one of the regions with the highest seismic activity. Land degradation and soil erosion, aggravated by recurring floods and droughts have a negative impact on agricultural production and affect the livelihood assets of poor people in rural areas even more.
17. El Salvador's main water resource is the Lempa River basin, which provides water to the majority of the country's population. Located in the north-west, the department of Santa Ana, forms part of the upper basin of Lempa River. This area has been particularly affected by reduced rainfall and the increase in drought due to the variability of the climate, and as such it falls within the "dry corridor" of Central America. The department of Santa Ana, includes, among others, the municipalities of Candelaria de La Frontera, Texistepeque and Metapán, which form part of said corridor. This area is also affected by severe weather phenomena such as droughts, heat waves, floods and landslides.
18. In response to this situation, the Ministry of Agriculture and Livestock (MAG)², the Ministry of Environment and Natural Resources of El Salvador (MARN)³, the Ministry of Health (MINSAL), General Directorate for Civil Protection (DGPC), the National Centre of Agriculture, Livestock and Forestry Technology (CENTA), local participating governments and FAO, with the financial support of the GEF and SCCF, carried out the project "*Climate Change Adaptation to Reduce Land Degradation in Fragile Micro-Watersheds located in the Municipalities of Texistepeque and Candelaria de la Frontera*". During its implementation, the municipality of Texistepeque was replaced with the municipality of Metapán.

2.2 Project background

19. The project strategy consisted in promoting a change adapted to the context of the local unsustainable agriculture and livestock systems, deficiencies in institutional capacities, and the high vulnerability to extreme weather events. In order to achieve this, the Project aimed to promote integrated natural resources management (INRM)

² By means of the General Directorate of Forestry, River Basins and Irrigation Management (DGFCR) which acts as the technical reference point.

³ Focal institutional point of the GEF for the country.

and introduce more resistant production systems at local level. The vision promoted (see theory of change further ahead) was based on the adoption of the INRM increasing the capacities of the beneficiaries to adapt to the impacts of climate change. One way of achieving this, and with the idea of making it sustainable over time, was for the Project to try to reinforce the interinstitutional mechanisms, involving the stakeholders to coordinate actions.

20. The *Global Environmental Objective* of the project was to contribute to stopping and reversing global trends in land degradation, specifically desertification and deforestation, by promoting sustainable land and water management practices in areas with highly eroded natural resources vulnerable to desertification in the Santa Ana Department, particularly in the micro-watersheds selected (see Figure 1).
21. The *Project Development Objective* was to increase and improve the provision of goods and services from agriculture and forestry in a sustainable manner, through the promotion of integrated natural resources management (INRM) and the reduction of land degradation; and to increase the resilience of livelihoods to threats and crises by mainstreaming Climate Change Adaptation (CCA) and Disaster Risk Reduction (DRR) into Fragile Micro-Watersheds Management Plans; with the participation of small-scale farmers.

Figure 1 - Map of the Department of Santa Ana showing the areas in which the project was implemented



Source: Elsv.Info and OED

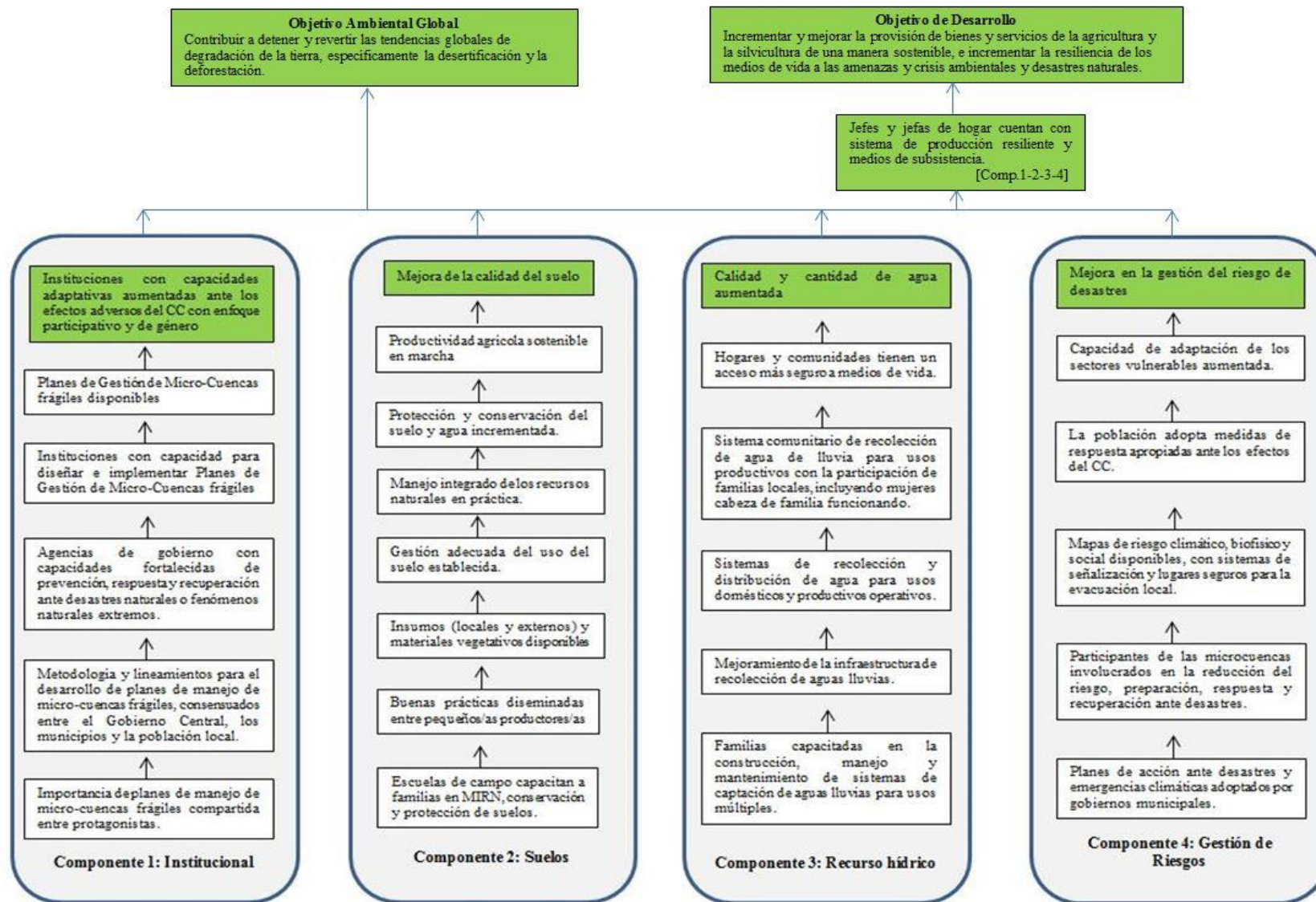
22. The specific objectives established as components of the project are:
- Component 1:** Institutional strengthening in design and implementation of Fragile Micro-Watershed Management Plans that increase adaptive capacities to the adverse impacts of CC, based on a participatory and gender-sensitive approach;
 - Component 2:** Soil quality enhancement based on the increase of vegetation cover, integrated natural resource management, suitable land-use, recovering the flow of agro-ecosystem services in fragile micro-watersheds, with a gender-sensitive approach.
 - Component 3:** Increasing water quality and quantity to diversify livelihoods and income sources of vulnerable sectors in targeted micro-watersheds, enhancing participatory and gender-sensitive management;
 - Component 4:** Improving disaster risk management to increase adaptive capacity to climate change, in vulnerable sectors living in targeted micro-watersheds;
23. A fifth "component" was also included in the ProDoc, "M&E and information dissemination", which was geared towards being a management and dissemination tool.
24. The project began on 1 November 2014 for a period of three years and was later extended until 3 June 2018 with the same total budget foreseen of USD 7 959 370.
25. Of this, approximately 19% would be provided by the GEF (USD 521 370), and by the SCCF (USD 1 000 000). The remaining and originally planned budget would be provided as co-financing (whether in cash or in-kind) by the Project partners and their national counterparts: USD 6 000 000 from the Ministry of Agriculture and Livestock (MAG) of El Salvador; USD 180 000 from the General Directorate of Forestry, River Basins and Irrigation Management (DGFCR); USD 158 000 from the National Centre of Agriculture, Livestock and Forestry Technology (CENTA) and USD 100 000 from the Food and Agriculture Organization of the United Nations (FAO).

2.3 Theory of Change

26. As a logical type of framework, the theory of change (ToC) tries to simplify what are actually dynamic and fluid interactions that take place within a complex system. Nevertheless, a ToC is useful, particularly in several stages of the cycle of a project, which include:
- ❖ Design
 - It helps to find the best scenario exploring multiple possibilities;
 - It strengthens the programme design by identifying weaknesses and gaps in the logic;
 - It fosters understanding and promotes consensus, acceptance and teamwork;
 - ❖ Implementation
 - It helps to visualise the necessary adjustments and corrections as the programme is implemented;
 - It helps in decisions regarding the assignment of limited resources;
 - ❖ Evaluation
 - It facilitates a common understanding of the programme (among evaluators and key stakeholders of the programme);

- It helps to clear up what should be evaluated, when and how
 - It is useful to generate questions for the Evaluation Matrix.
27. The project's Theory of Change (ToC) was prepared as part of the process for its final evaluation as it was not prepared during its design. The ToC offers a high level map of a series of routes of causal outcomes that lead the project to fulfil its objectives. It is important to take into account that this is not a definitive and full representation of the routes of outcomes; it is an interpretation of how the project "achieves change". The project team validated the ToC during an introductory session with the evaluators.
28. The ToC maps the prior conditions (expressed as declarations of outcomes in each table) that successively lead (from bottom to top) to the outcome at the level above (objectives in green). The arrows represent the main directions of the routes; although there may be loops between tables, these are not drawn for the sake of clarity. You need to use an "if-then" approach to read the tables of outcomes when following the arrows upwards.
29. Lastly, there are several assumptions that provide the context for the ToC:
- Scenario 1: there is political will to perform the activities contemplated;
 - Scenario 2: the resources (financial, human and physical) are available on time;
 - Scenario 3: the beneficiary communities and individuals share the project objectives and would like to actively participate.
30. The full theory of change (ToC) can be found in appendix 8. A simplified version is shown below:

Figure 2 - Theory of Change



3. Findings of the evaluation

32. The findings are presented following the structure of the evaluation matrix, meeting the reporting needs summarised therein. The main questions related to each of the six evaluation criteria are answered. The answers to the sub-questions of each criterion will be reflected in the narrative of each corresponding section, grouped by topic, and in some cases, combined to make for easier reading.
33. The project was originally implemented in three micro-watersheds (MW) of Candelaria de la Frontera and three MW of Texistepeque, in order to encompass 1 200 families covering 1 541 hectares. In the middle of 2016, due to increased limitations to execution of the project in Texistepeque, detailed further on, the Project Steering Committee (PSC) decided to transfer the actions to territories with similar conditions in the municipality of Metapán where the activities were performed from the third quarter of 2016.

3.1 Relevance

Evaluation question 1: Were the project strategy and actions appropriate for meeting the needs of all the stakeholders involved in matters of integrated natural resources management and adaptation to climate change, including support for implementing policies and programmes by the Government of El Salvador, for the Country Programming Framework (CPF) and for the FAO Strategic Objectives (particularly SO2 and SO5) and the GEF's objectives LD1 and LD3?

Finding 1: The project strategy and actions were relevant and appropriate for meeting the needs of all the stakeholders involved in matters of integrated natural resources management and adaptation to climate change, and were aligned to support the implementation of policies and programmes by the Government of El Salvador, the municipalities, in the Country Programming Framework (CPF) and the FAO Strategic Objectives (particularly SO2 and SO5) and the GEF's objectives LD1 and LD3. The project fulfilled the needs prioritised by the communities by means of participatory processes.

Finding 2: The project design was very ambitious in attempting to achieve the objectives in three years of execution. Introducing and consolidating the concept of micro-watersheds as units of organisation for the planning and management of natural resources and to promote new interinstitutional work methods was the right choice.

3.1.1 Political, institutional and strategic relevance

Attention to the needs of the national government

34. The Government of El Salvador (GoES) established that environmental management, adaptation to climate change and the reduction of the risk of disasters were the country's priorities. Based on this context, the evaluation confirms that the relevance of the project has been high due to its alignment, from its design, to the pertinent policies in the country and due to fulfilling the needs prioritised by the partners. While the project was being prepared, **a series of policies, strategies and guiding**

frameworks were identified that the project was in line with, among which the following are noteworthy:

- The *2010-2014 Five-Year Development Plan*⁴ that among its strategic objectives included that of "Reversing the process of environmental degradation and turning El Salvador into an environmentally exemplary country and, consequently, one with fewer conditions of vulnerability to natural phenomena and human actions. With this aim in mind, the Government undertakes to strengthen the institutionality related to environmental protection and to design and begin to implement a national risk management policy [...]". The priority areas of relevance included:
 - (a) the significant and verifiable reduction of poverty, economic and gender inequality [...]
 - (b) economic reactivation, including the reconversion and modernisation of the agricultural sector [...]
 - (c) the effective and long-term management of environmental risks and the reconstruction of the infrastructure and recovery of the social and productive fabric damaged by the effects of storm Ida, and by other natural phenomena and human actions.";
- The *National Environment Policy* (MARN 2012)⁵ contained, among others, the following priority lines of action: (a) Restoration and inclusive conservation of ecosystems (b) Integrated water resources management and (c) Adaptation to climate change and reduction of risks;
- The *Environmental Strategy for Climate Change Adaptation and Mitigation in Agriculture, Livestock, Forestry and Aquaculture Sectors* (MAG, 2012), the objective of which was to "Contribute to the adaptation to climate change impacts in the livestock, forestry [...] sectors, employing a sustainable approach to the management of watersheds while contributing to the mitigation of global warming as a co-benefit of efforts to adapt." The project was aligned with five of the strategic axes identified in the policy: (a) strengthening of capacities (b) technological innovation and transfer (c) interinstitutional cooperation (d) institutional strengthening and (e) citizen participation;
- The *Civil Protection, Prevention and Disaster Mitigation Law (2005)*⁶ that aims to prevent, mitigate and effectively attend to natural and man-made disasters in the country. The project was aligned with the work of the Municipal and Communal Committees, which were established in law, on using the territorial organisation mechanism for relevant activities;

35. **The project is also aligned with the 2012-2015 United Nations Development Assistance Framework (UNDAF) for El Salvador:** The direct effect of Strategic Area 5 "Environmental Sustainability and Reduction of Risk of Disasters" would be that "The national government and local governments will have designed and implemented strategies, plans and mechanisms in a participatory manner that promotes the reduction of risks of disasters, the sustainable management of natural resources, the recovery of ecosystems and the adaptation to and mitigation of climate change." In particular, it is worth highlighting the initiatives that enable municipalities and

⁴ <http://2009-2014.secretariatecnica.gob.sv/novedades/publicaciones/plan-quinquenal-de-desarrollo/2009-2014.html>

⁵ <http://www.marn.gob.sv/descarga/politica-nacional-del-medio-ambiente-2012-2/?wpdmdl=14779>

⁶ www7.mh.gob.sv/downloads/pdf/PMHDC9540.pdf

communities to integrate in their planning processes and regulations actions that result in the following: "(a) Reduction of risks of disasters, with a gender-sensitive approach (b) management of water basins (c) sustainable recovery and management of natural resources and ecosystems.";

36. After commencing the project activities, it was substantially kept in line with policies, strategies and guiding frameworks prepared in the meantime, including:

- The *2014-2019 Five-Year Development Plan*⁷, in particular its Objective 7 - To transition towards an environmentally sustainable society and economy that is resilient to the effects of climate change;
- The *2014-2019 Institutional Strategic Plan "Agriculture for good living"*⁸ (MAG) and specifically priority 9 of such (environmental sustainability, mitigation and adaptation to climate change);
- The *Environmental Strategy of Adaptation to and Mitigation of Climate Change in the Livestock, Forestry, Fishing and Aquaculture Sectors* (MAG 2015)⁹;
- The *National Strategy for the Management of Water Basins*¹⁰, prepared in 2017 with the support of FAO;
- The *National Plan for Climate Change and the Management of Agroclimatic Conditions for the Livestock, Forestry, Fishing and Aquaculture Sectors of the Ministry of Agriculture and Livestock* (MAG 2017)¹¹, prepared with the support of FAO;
- The *Forestry Strategy of El Salvador of the Ministry of Agriculture and Livestock* (MAG 2017)¹², prepared with the support of FAO. In particular, component 3 (Restoration of ecosystems and increase in forest coverage) contains elements that were being implemented by the project;
- The *2016-2020 United Nations Development Assistance Framework (UNDAF)*¹³ establishes as its area of cooperation 4 (resilience) "The most vulnerable and excluded community and people have increased their capacities for resilience to disasters, environmental degradation and the negative effects of climate change.

Attention to the needs of the local authorities

37. During the design and implementation of the project, the town halls participated actively, which led to a high level of coherence with the priorities of these locations.

38. The project was aligned with the environmental policies/actions promoted by the two municipal governments. Both municipalities have a policy of planting trees, and have nurseries located in the forest; but they do not cover all the land with plant production; and this is why the project adds to the activity offering a high percentage

⁷ <http://www.presidencia.gob.sv/wp-content/uploads/2015/01/Plan-Quinquenal-de-Desarrollo.pdf>

⁸ <http://extwprlegs1.fao.org/docs/pdf/els166336.pdf>

⁹ http://dialogoelsalvador.com/dialogo_sv/admin/uploads/documentos/galerias/49cde-estrategia-ambiental-de-adaptacin-y-mitigacin-al-cambio-climtico-del-sector-agropecuario-forestal-pesquero-y-acucola.pdf

¹⁰ <http://centa.gob.sv/docs/unidad%20ambiental/Estrategia%20Cuencas.pdf>

¹¹ <http://centa.gob.sv/docs/unidad%20ambiental/Plan%20Nacional%20de%20Cambio%20Clim%3%A1tico.pdf>

¹² <http://centa.gob.sv/docs/unidad%20ambiental/EstrategiaForestal.pdf>

¹³ https://www.unicef.org/about/execboard/files/EL_Salvador_DPDCPSLV3_UNDAF_2016-2020-FINAL-13_05_2015.pdf

of production and establishment of plants in each micro-watershed attended to in each municipality.

39. **The topics of food security, safeguarding and the sustainability of the livelihoods of rural families driven by the project adhere to public policies** regarding food and nutrition security that have the two municipalities in their areas of intervention, which have units specialised in the topic. For example, the project is aligned with the policies of the Town Hall of Candelaria de la Frontera ("Zero Hunger") and of Food and Nutrition Security (FNS) (established by means of a municipal ordinance) within the framework of the work of the Trinational Border Association of Municipalities of the Lempa River.

Attention to the needs of the beneficiaries

40. **The relevance of the project at the level of the beneficiaries (individuals and communities) in the two municipalities of intervention is high.** This is due, to a great extent, to the participatory processes driven from the point of design and continued during the implementation.
41. A series of events took place in the different communities in order to identify needs and priorities. This, combined with the objectives and characteristics sought by the project, resulted in the identification of the beneficiary areas and the high degree of relevance.
42. The topics prioritised included access to and the recovery of sources of water, protection and improvement of productive soil, diversification of production and creation of businesses to cover products/services not attended to. **The communities visited by the evaluation were unanimous in their positive assessment of the relevance** of the components covered by the project.

Attention to the priorities and strategic objectives of the GEF and FAO.

43. **The evaluation found that the ProDoc is expressly aligned with the priorities of the GEF** (GEF-5) relating to land degradation, with the relevant strategic objectives (SO) of FAO and the relevant priority areas of the CPF.
44. Component 2 of the project is aligned with objectives LD-1¹⁴ and LD-3¹⁵ of the GEF of the Focal Area of fighting against Land Degradation by moving towards (a) increasing the vegetation cover while soil quality improves in the micro-watershed trial; (b) the application of an integrated natural resources management approach (including conservation areas) to improve soil fertility; (c) the increase in the sustainable use of soil to recuperate the flow of agroecosystems services in fragile ecosystems.
45. During the design of the project, the FAO strategic framework differed from the current one. The one in force at that time was the *2010-2019 FAO Strategic Framework*. Under

¹⁴ Agriculture and pastures: Maintain or improve the flow of agroecosystems services that sustain the livelihoods of the local communities (LD-1, Framework of Outcomes of the Focal Area, GEF-5, 2010).

¹⁵ Integrated landscapes: reduce the pressures on the natural resources of the land from the competitive use in the broader panorama (LD-3, Framework of Outcomes of the Focal Area, GEF-5, 2010).

this framework, the project was in line with Strategic Objective "F" (SO-F: Sustainable management of land, water and genetic resources and improved responses to global environmental challenges affecting food and agriculture). Within SO-F, **the results of the project were aligned with the Organization's Outcome 1** (countries promote and develop sustainable land management) and the Organization's Outcome 2 (countries address the shortage of water in agriculture and strengthen their capacities to improve the productivity of water in agricultural systems at the level of national river basins, including cross-border water systems).

46. Under the new framework valid during the period of implementation - *Revised Strategic Framework* (2013) - **the project was in line with Strategic Objective 2** (SO2), (to increase and improve the provision of goods and services from agriculture, forestry production and fisheries in a sustainable manner), and **Strategic Objective 5** (to increase the resilience of livelihoods to threats and crises).
47. Similarly, the project was designed and implemented under two different country programming frameworks (CPF). **The project is aligned with the:**
- *2011-2014 Country Programming Framework CPF* under its three Priority Topic Areas- (a) Family farming, nutrition and poverty reduction, (b) Strengthening of the regulation and institutional capacities for improving management and efficiency and (c) Natural resources, climate change (CC) and risk management;
 - *Country Programming Framework (CPF) of FAO in El Salvador 2016-2020* and its three priorities- (a) Public policies and institutionality of FNS with a focus on rights, (b) Family farming, rural development and poverty reduction and (c) Natural resources, climate change, risk management and response to emergencies.

3.1.2 Project design

48. **The project was designed based on a series of consultative processes, field visits and diagnosis of needs.** This made it possible to prepare a ProDoc that, being ambitious in the amount of time to be implemented, contained the elements required to achieve the results.
49. In this sense, **the project was well positioned to make progress with its Global Environmental Objective** which was to contribute to stopping and reversing current global trends in land degradation, specifically desertification and deforestation, by promoting sustainable land and water management practices in areas with highly eroded natural resources vulnerable to desertification in the Santa Ana Department.
50. By means of the activities and supplies contributed to its four components, **the project set the foundations for facilitating its Development Objective** and supported an increase and improvement in the provision of goods and services from agriculture and forestry in a sustainable manner, through the promotion of INRM and the reduction of land degradation; and an increase in the resilience of livelihoods to threats and crises by mainstreaming Climate Change Adaptation (CCA) and Disaster Risk

Reduction (DRR) into Fragile Micro-Watersheds Management Plans; with the participation of small-scale farmers.

51. **The evaluation identified the following as the main design strengths** of the project:

- The introduction, in the area of implementation, of the topic of adaptation to climate change from the perspective of micro-watersheds as units of organisation. The project strategy considers micro-watersheds to be the best units of territory and organisation for the planning and management of natural resources;
- Having focussed on: a) specific actions for the sustainable management of soil and improvement of the deteriorated landscape; b) specific actions for the management of water resources and c) the management of risks focusing on agroclimatic risks;
- The comprehensive approach of its components without losing sight of its environmental profile, incorporating social topics, FNS, civil protection and health;
- Its alignment with the national and local priorities and incorporation of the priorities identified by the beneficiary communities - building on the commitment of the parties despite the delays experienced;
- The importance placed on raising awareness of the different topics, in particular, to change cultural environmental practices. This type of action is an eye-opener, which provides another point of reference for the participants and which will at the same time remain with them once the project has been completed.
- The work to raise awareness in order to change cultural environmental practices has proven effective.

On the other hand, **the evaluation identified some weaknesses in the design** of the project:

- It was found that the management capacities and mechanisms of the national counterparts to cover the territory and support the implementation of the project were sufficient. As a result of not having the level of support expected, the project had to hire additional employees to fill in the gaps during the implementation of the project;
- The time required to implement the activities was underestimated and no time margins were planned to act as a buffer for any unforeseen situations. For example, the delay in obtaining the signature of the Letter of Agreement with CENTA and the change in municipalities led to severe delays in the implementation;
- The change in national authorities and the entry into force of a new five-year plan was not taken into account;
- A theory of change was not prepared which meant the loss of the chance to use a design, management and monitoring tool that would have facilitated the project management.

3.2 Effectiveness

Evaluation question 2: To what extent were the environmental outputs, outcomes and objectives produced and achieved?

Finding 3: The evaluation found that the project fulfilled the outcomes defined in each of its components. Component 1 was evaluated as moderately satisfactory. The interinstitutional coordination the project managed to achieve is worth highlighting, as well as the level of awareness that the different stakeholders - mainly the communities - acquired regarding the adverse impacts of climate change and the appropriate responses to address them. There were noteworthy levels of participation in activities relating to the reduction of risk at local level. The Evaluation found that the project could have been more effective in the implementation of Fragile Micro-Watersheds Management Plans, as although their preparation was the result of a participatory and inclusive process accepted by all stakeholders in the territory, the instruments were generated late and did not enable the orientation of the implementation of the actions in the four micro-watersheds. Because of this, its rating is moderately satisfactory for the achievement of the objective proposed.

The evaluation rates components 2 and 3 as satisfactory. The actions implemented by the Project geared towards increasing vegetation cover to protect and conserve the soil and aquifer system, as well as the promotion of integrated natural resources management practices have led to the achievement of the objective set forth. Similarly, they have made it possible to increase the quality and availability of water, and for families to have more secure access to a means of livelihood.

The evaluation rates the achievement of Outcome No. 4 as moderately satisfactory. The level of awareness among the population regarding the predictable adverse impacts of climate change has increased, and it is adopting measures to address it. However, the population has not improved its condition of vulnerability and the municipal and departmental response mechanisms must be consolidated to respond to extreme weather events.

COMPONENT 1: INSTITUTIONAL STRENGTHENING IN DESIGN AND IMPLEMENTATION OF FRAGILE MICRO-WATERSHED MANAGEMENT PLANS THAT INCREASE ADAPTIVE CAPACITIES TO THE ADVERSE IMPACTS OF CC, BASED ON A PARTICIPATORY AND GENDER-SENSITIVE APPROACH;

52. **The evaluation rates the achievement of Outcome No. 1 as moderately satisfactory.** The institutions present in the project targeted area have worked in a coordinated manner and integrated adaptation to CC into their management processes. The specialists have more capacities; and in general, the stakeholders in the territory are more aware of the adverse impacts of climate change and know the correct responses for tackling them. The Fragile Micro-Watersheds Management Plans (FMWMP) are planning instruments that make it possible to appropriately guide the actions in the territory. However, they were being prepared up until the end of the Project, which meant they lacked applicability and were not verified upon comparison with the real-life situation. The following details the main findings within component 1 that justify this rating.

OUTCOME 1.1

INSTITUTIONS PRESENT IN THE PROJECT TARGETED AREA HAVE ENHANCED CAPACITIES TO INTEGRATE CCA IN FRAGILE MICRO-WATERSHED PLANNING AND MANAGEMENT PROCESSES, BASED ON INTERSECTORAL COORDINATION, AND A BOTTOM-UP AND GENDER-SENSITIVE APPROACH.

- *Seven institutions present in the project intervention area with enhanced capacities to reduce the risks and respond to climate change.*

53. This objective has been fully fulfilled. The Project brought about the coordination of seven institutions, which have improved their capacities to integrate Climate Change Adaptation (CCA) into their planning and management processes in six fragile micro-watersheds.

54. The institutions that have increased their capacities and are still present in the area are: 1) the General Directorate of Forestry, River Basins and Irrigation Management (DGFCR) of the Ministry of Agriculture and Livestock, 2) the Ministry of Environment and Natural Resources (MARN), 3) the Ministry of Health (MINSAL), 4) the National Centre of Agriculture, Livestock and Forestry Technology (CENTA), 5) General Directorate for Civil Protection (DGPC), 6) the Local Government of the municipality of Candelaria de La Frontera, 7) the Local Government of the municipality of Metapán.

- *Observations of the specialists regarding the improvement of their capacities relating to Climate Change Adaptation in the Fragile Micro-Watersheds Management Plans*

55. The specialists viewed the improvement of their Climate Change Adaptation capacities very favourably.

56. Given that the institutions linked to the Project are experts in specific areas related to CCA, teaching and learning workshops were provided in which the specialists shared their knowledge and experience. Consequently, the capacity improvement process was two-pronged as later on the trainers became trained in the topics they had little knowledge and/or experience of. As identified in the Mid-Term Evaluation, this methodology made it possible for all of the bodies involved, by means of their specialists, to learn about several topics and be able to therefore provide solutions, where relevant, to the families of the 4 micro-watersheds.

57. Improvements in CCA capacities were progressively made within the institutions present in the Project targeted area, in the interest of creating a technical platform that would enable the preparation of Fragile Micro-Watersheds Management Plans in the short-medium term.

Output 1.1.1 Methodology and guidelines for planning included in the participatory negotiation and drafting of three fragile micro-watershed management plans, in the project targeted area.

58. The Project provided key support in the methodological design, planning and management of the micro-watersheds. Before the project, the micro-watersheds did not have a Management Plan, or the capacities to develop one. It is worth mentioning

that the Project also generated technical capacities in the institutions present in the targeted area, by means of workshops and coordination actions.

59. One of the main instruments the Project created was the *guide for the preparation of Fragile Micro-Watersheds Management Plans (FMWMP)*. The guide enabled the drafting of four micro-watersheds management plans (1 in Metapán and 3 in Candelaria de La Frontera), which were developed in a participatory manner in the different Project targeted communities¹⁶.
60. As part of the process of preparation of the FMWMP, management groups were composed at micro-watershed level. To put the management groups together, the availability and commitment of those who currently comprise them, who are all representatives of the communities, prevailed. The following provides details of how the management groups are composed in the four micro-watersheds.

Table 2 - Composition of the management groups during the process of preparation of Fragile Micro-Watersheds Management Plans.

MUNICIPALITY	MICRO-WATERSHED	WOMEN	MEN	TOTAL
Candelaria de La Frontera	Santa Gertrudis	3	3	6
	El Jute	3	5	8
	Mojarras Blancas	3	13	16
Metapán	El Salitre	1	11	12
Total		10	32	42
% participation		24%	76%	100%

Source: Results of the survey of the Final Evaluation of the Project "Climate Change Adaptation to Reduce Land Degradation in Fragile Micro-Watersheds".

61. The plans were not developed using rigid technical language, which is not a criticism; quite the contrary, this aspect makes them easy for the communities comprising the micro-watersheds to understand and handle.
62. At present, the DGFCR/MAG has officially adopted the instrument at institutional level, and aims to put it into practice in the planning and management processes of the micro-watersheds it conducts in the future.

Output 1.1.2 Seven Institutions present in the project targeted area have medium capacities

63. The Project reports a total of 110 trained specialists (78 specialists from institutions in Candelaria de La Frontera, and 32 in Metapán), exceeding the programmed target of 90 specialists across the three years of execution of the Project.
64. The training was linked to the Project components. The areas covered included: food security, climate change, sustainable management of soil, management of water resources, management of risk, among others. Within these areas, one aspect the

¹⁶ The Project hired an external consultant to prepare the Fragile Micro-Watersheds Management Plans. The plans were shared with all stakeholders at territorial level.

specialists found worthy of pointing out was the training on geographical information systems to prepare and analyse maps.

65. The outcomes of the training are satisfactory. The training process rested to a large extent on the exchange of knowledge and experience among the institutions or key stakeholders in the territory. This exchange of knowledge is horizontal, and takes place on the basis of the nature or expertise that each benchmark institution has on different topics.

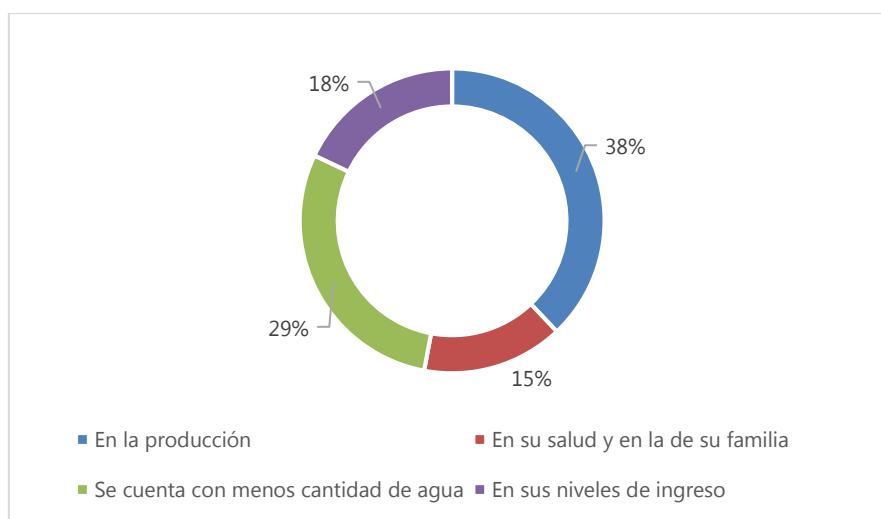
OUTCOME 1.2

MEN, WOMEN, LOCAL AUTHORITIES AND INSTITUTIONS WITH A TERRITORIAL PRESENCE IN THE PROJECT TARGETED AREA ARE AWARE OF THE ADVERSE IMPACTS OF CLIMATE CHANGE, APPROPRIATE RESPONSES AND AFFIRM THEIR OWNERSHIP OF CC ADAPTATION PROCESSES.

- *75% of men, women, local authorities and institutions present in the selected areas are aware of the adverse impacts of climate change, and the appropriate responses.*
66. 100% of the institutional representatives or points of reference interviewed, as well as all of the leaders who participated in the focus groups, stated they were aware of the adverse impacts of CC and the associated appropriate responses. In particular, the communities are performing specific actions to adapt to and better address the consequences of climate change.
 67. 68% of families consulted by means of surveys have heard people talk about climate change. Of these, 83% state that the first time they had heard about CC was through the Project. On average, the families consider that the first time they heard people talk about climate change was in December 2015, which coincides with the entire initiation and awareness-raising phase of the Project¹⁷.
 68. Of all the people consulted, 70% view CC as something negative, the remaining 30% view it as something positive or do not know what it is. People who consider CC something negative, indicated that it has affected them in the following aspects:

Figure 3 - Observations of the families consulted regarding the areas most affected by the consequences of CC.

¹⁷ The survey was conducted in June 2018 and the families consulted indicated on average that the first time they heard people talk about CC was 2.78 years before.



Source: Results of the survey of the Final Evaluation of the Project "Climate Change Adaptation to Reduce Land Degradation in Fragile Micro-Watersheds".

69. In response to the above, the families are completing a series of actions on their own initiative, which include the following, in order of importance: Plantation of fruit trees and/or forest trees (52%); application of Good Agricultural Practices (24%); installation of water capture systems (13%); installation of drip irrigation systems (10%); construction of reservoirs (1%).

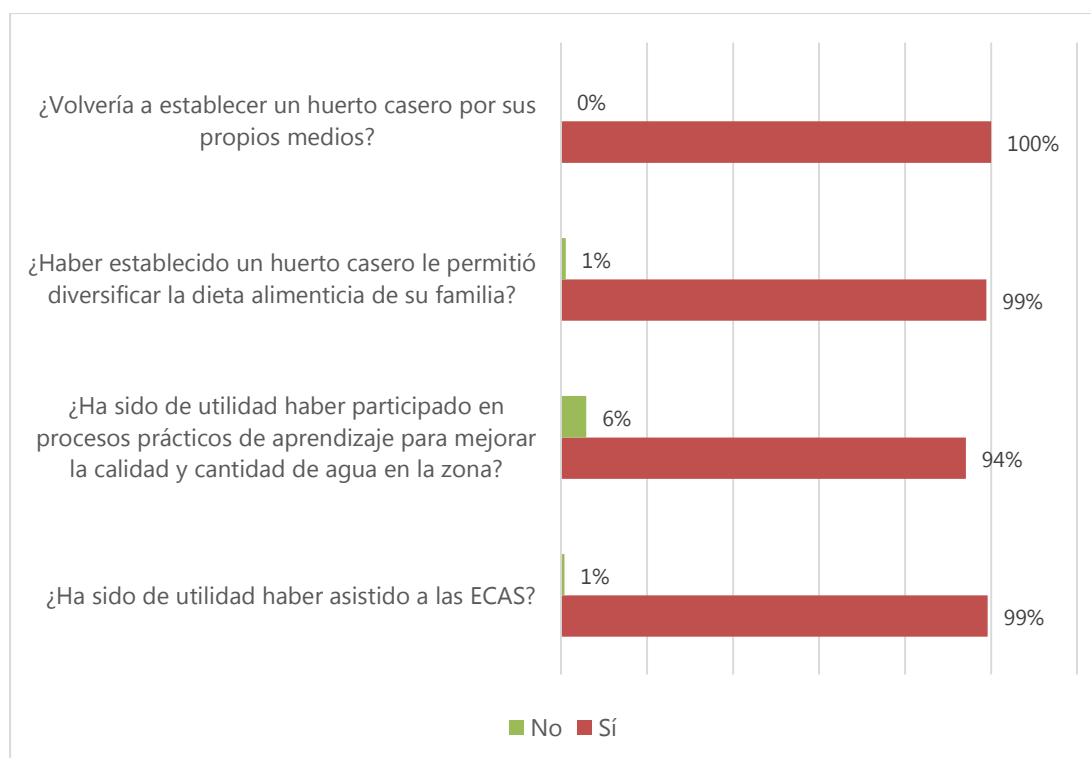
- *SCCF AMAT indicator 2.3.2.: 50%-75% of the population affirms appropriation of the adaptation processes.*

70. 83% of the families consulted registered appropriation of the Climate Change adaptation processes, indicating that there is an improvement in at least one aspect linked to subsistence assets (livelihoods).

71. One of the main reasons that have led to this appropriation of the CC adaptation processes is having formed part of the training and/or technical assistance programmes. 58% of the people consulted in the survey stated that they had received this service from the project, in topics relating to: the impact of climate change and identification of weaknesses (133 people), establishment of domestic vegetable gardens (91 people), practical learning processes to improve the quality and amount of water in the area (68 people), development of field schools (FFS) to improve agricultural production (127 people), among other aspects. Some people were assisted by the project in more than one topic and/or service.

72. It is also worth mentioning that in the aforementioned areas, the level of appropriation - measured by the usefulness of the project services offered to the people assisted - reaches an average of 98%, which equates to 3% more compared to the measurement made during the intermediate evaluation. The following graph shows a breakdown of the level of usefulness of some services.

Figure 4 - Level of ownership measured by the usefulness of the project services to the people assisted.



Source: Results of the survey of the Final Evaluation of the Project "Climate Change Adaptation to Reduce Land Degradation in Fragile Micro-Watersheds".

Output 1.2.1 Four strategic alliances

73. The project focussed its efforts on the composition of four Local Committees, comprising municipal officials and local leaders belonging to the micro-watersheds. The committees were to support the development of Fragile Micro-Watersheds Management Plans in the municipalities of Candelaria de la Frontera and Metapán; and their role was to be equally decisive in the implementation phase of the FMWMP. However, there is no record that this occurred as it seems that the role played by the *management groups* in preparing the FMWMP, as well as for future implementation, was more relevant.
74. In addition, the Project reports introduction to and communication with some strategic stakeholders, including: Comisión Ejecutiva Hidroeléctrica del Río Lempa (CEL), CRIAVES S.A. de C.V., LAFARGE – HOLCIN and GENSA, as well as other private companies operating in the areas surrounding the micro-watersheds. It is worth mentioning that the FMWMP consider specific actions that could be supported by these stakeholders, and consequently, it is very important that the aforementioned management groups and companies understand this synergy at territorial level. To date, these alliances are based solely on verbal agreements, and have no legal document to support them.
75. Noteworthy among these alliances is that obtained by the Project in the last semester with the Trinational Border Association of Municipalities of the Lempa River, whose facilities are located in Candelaria de La Frontera and who from here perform a series

of actions geared towards achieving an appropriate management of water resources for one of the project targeted communities.

Output 1.2.2 Six FMWMP approved in a participatory manner and implemented in the project targeted area

76. This is an output that had been programmed for the first year of execution of the Project and was delayed until the end of such. The preparation and implementation of six FMWMP was considered originally, given that three Plans would correspond to the micro-watersheds of Candelaria de La Frontera, and the three remaining to the micro-watersheds of Texistepeque. However, due to the replacement of this latter municipality by Metapán, only the micro-watershed of El Salitre was worked on, and the output indicator was also changed to *four FMWMP approved in a participatory manner and implemented in the project targeted area*.
77. The FMWMP are the result of a participatory process at community level in the four micro-watersheds. They were prepared based on or using as a reference framework the *guide for the preparation of Micro-Watersheds Management Plans* which was designed for the Project, and which at the time was endorsed by the counterpart institutions¹⁸.
78. The FMWMP were presented in a public act during the closing week of the Project (June 2018). The representatives of the communities were present in the act, as well as specialists from the counterpart institutions and other bodies invited that have experience in these kinds of processes.
79. The delay in the preparation of the FMWMP impeded the Project from becoming involved in the implementation phase. Despite this, the different communities that form part of the micro-watersheds are aware of and familiar with the instrument; in addition they agree not only with the diagnosis but also with the creation of action proposals reflected in the FMWMP. Consequently, the FMWMP are considered an important legacy of the Project in the Micro-watersheds.
80. One aspect that could possibly have been improved in the process of preparation of the FMWMP, is having involved the institutions that operate in the Project intervention area more; as due to the (mainly financial) restrictions faced by the communities that compose the micro-watersheds, the participation of these institutions from the action planning stage is essential, in order to guarantee the specification of the actions that have been established in the documents.

Output 1.2.3 750 heads of households trained in the impacts of climate change and in the identification of weaknesses (causes, practices, context) and have participated in risk reduction activities at local level

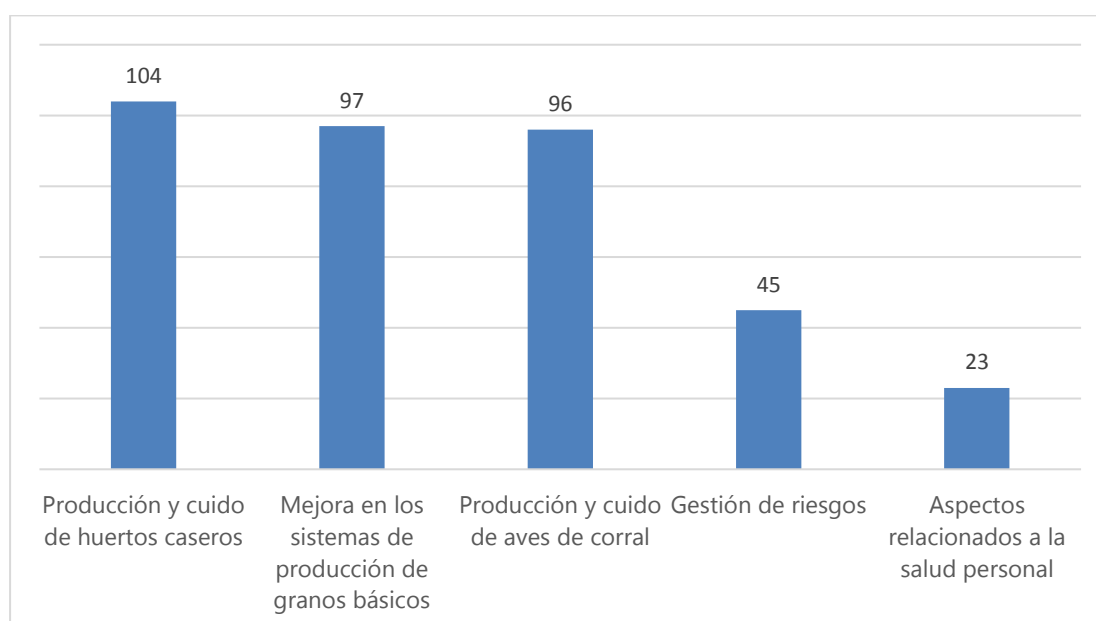
83. The output reports 100% progress since the Mid-Term Review. The project registers a total of five special events performed, the purpose of which was to raise awareness among the population about climate change, and the different actions to take into

¹⁸ The FMWMP preparation process was handled by an external consultant hired for the Project.

consideration in order to achieve better adaptation to the phenomenon. These events accounted for the participation of 773 heads of households (49% men and 51% women).

84. In addition, 58% of the heads of households consulted as part of the final evaluation stated that they took part in training directly linked to the theme of climate change and the identification of weaknesses; and as in the intermediate evaluation, 100% of the attendees revealed that they have put the knowledge acquired into practice. The following provides a breakdown of the areas in which the people consulted stated that they have performed actions leading to reducing their vulnerability.

Figure 5 - Areas in which specific actions have taken place to reduce the vulnerability by the people who attended training promoted by the Project¹⁹.



Source: Results of the survey of the Final Evaluation of the Project "Climate Change Adaptation to Reduce Land Degradation in Fragile Micro-Watersheds".

85. One aspect worth taking into account is that the project provided other training and assistance, the topics or services of which are linked precisely to the impacts of climate change and the identification of weaknesses; for example, the training provided through Field Schools, as well as the practical learning processes to improve the quality and quantity of water in the area. On considering this aspect, the percentage participation of heads of households increases to 66% in accordance with the information provided by means of a survey as part of the Final Evaluation.

OUTCOME 1.3

¹⁹ The people consulted had more than one response option.

THE PRODUCTION OF FOOD HAS INCREASED AND THE DIET HAS BEEN IMPROVED IN THE PROJECT TARGETED AREAS.

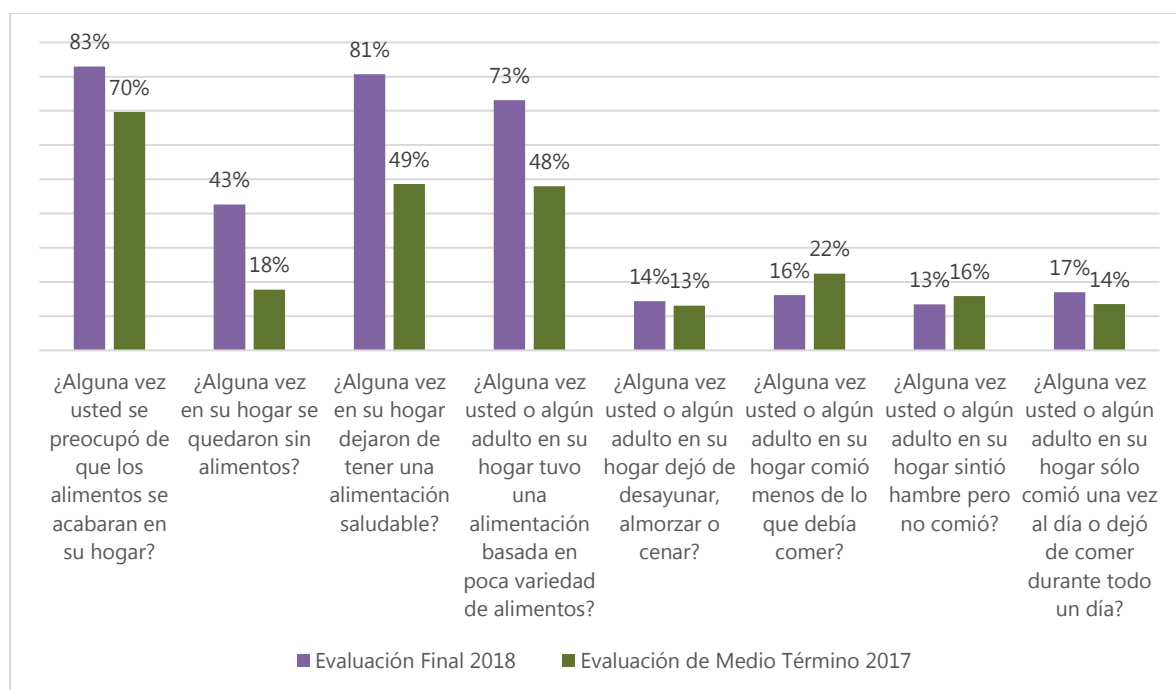
- *Level of food insecurity according to data from the ELCSA survey*

86. 83% of the families consulted indicated that in the last three months, due to a lack of money or other resources, they were at some point concerned that they would run out of food in their homes. This is the most unfavourable result of the ELCSA survey, followed by the fact that 81% of families stated that in the last three months, due to a lack of money or other resources, they at some point stopped having a healthy diet in their homes.
87. Other unfavourable results of the ELCSA survey correspond to 75% of the families who stated that at some point in the last three months, due to a lack of money or other resources, someone below the age of 18 in their home stopped having a healthy diet.
88. In addition, 73% of the families stated that in the last three months, due to a lack of money or other resources, an adult in the home did not have a varied diet. In the case of those under the age of 18, there was a record (based on a sample) of 279 boys, girls and adolescents who in the last three months did not have a varied diet²⁰,
89. In addition, on comparing the results of the Final Evaluation (2018) with those obtained in the Mid-Term Review (2017), it was observed that six of the eight ELCSA indicators linked to patterns of food consumption had worsened, as can be seen in the following graph.

Figure 6 - Comparison of the affirmative responses given by the heads of households to the ELCSA questions related to family food consumption²¹

²⁰ Of these 144 were male and 135 were female. The average age of these minors was 9.4 years, the maximum age was 17 years, and the lowest age was one month.

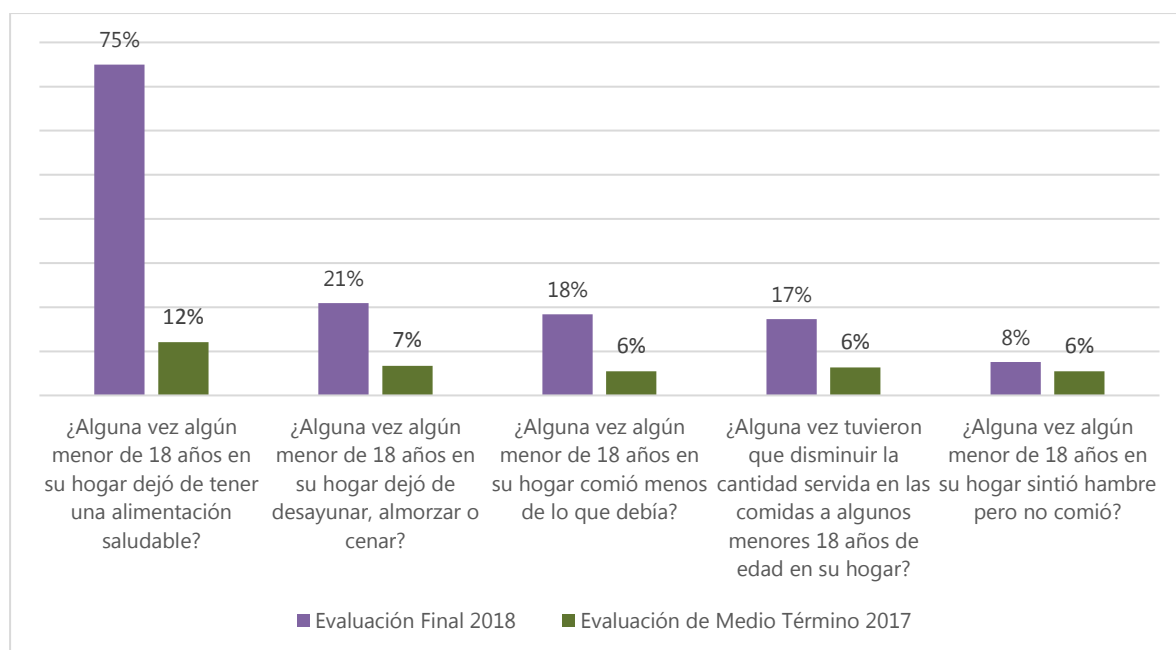
²¹ The responses refer to the occurrence of an event in the last three months.



Source: ELCSA results of the Final Evaluation and Mid-Term Evaluation of the Project "Climate Change Adaptation to Reduce Land Degradation in Fragile Micro-Watersheds".

90. With regard to the diets of those under 18 years old, this has worsened considerably on comparing the results of the ELCSA survey conducted during the Mid-Term Evaluation of the Project (2017), with that conducted in 2018 as part of the Final Evaluation.

Figure 7 - Comparison of the affirmative responses given by the heads of households to the ELCSA questions related to family food consumption, particularly among those under the age of 18 years.



Source: ELCSA results of the Final Evaluation and Mid-Term Evaluation of the Project "Climate Change Adaptation to Reduce Land Degradation in Fragile Micro-Watersheds".

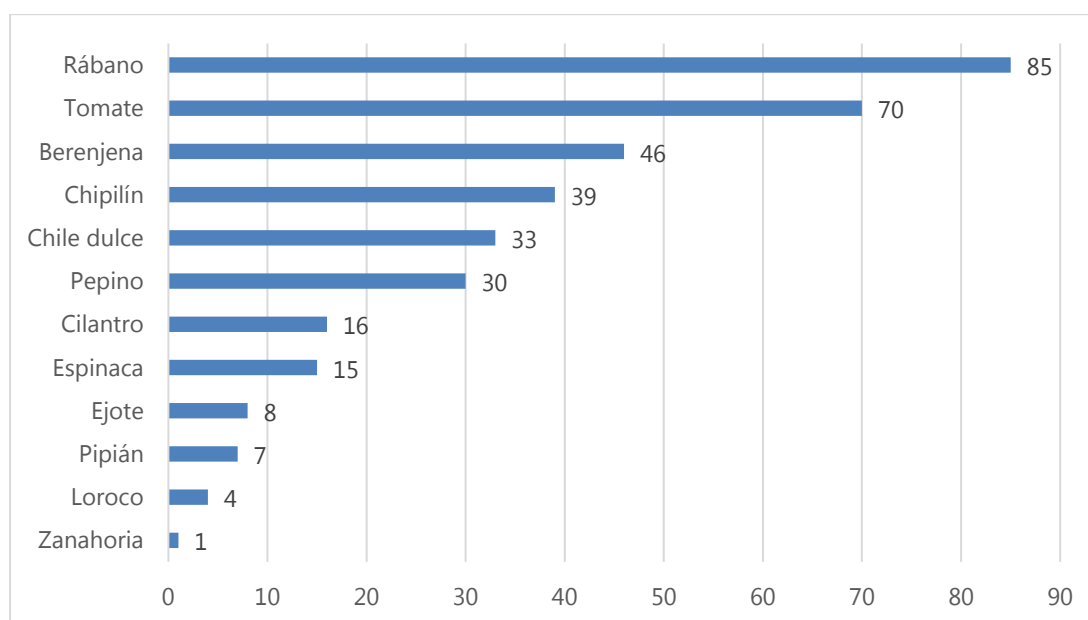
91. Generally speaking, despite the efforts made by the Project to improve family food consumption, the data shows a deterioration in the majority of the ELCSA indicators, specifically in 11 of 13 indicators. Another aspect that stands out in the ELCSA indicators as a result of the comparison made between the final evaluation and the mid-term evaluation relates to the question regarding whether at some point someone below the age of 18 years in the home, stopped having a healthy diet. The difference between one year and another is significant (63 percentage points).
92. This deterioration cannot and should not be exclusively attributed to the matter of effectiveness of the Project as the reasons for this situation may result from different factors that were not necessarily under its control²². In this respect, although the informants were several, the Final Evaluation considered the same questions made during the Mid-Term review. The aim in both cases was to define the current situation of the beneficiaries in specific areas of interest for the Project. However, the progress or delays registered on comparing these two periods, cannot (and should not) be attributed solely to actions of the Project; given that on lacking a treatment group and a control group, it is not possible to determine with precision, what the causes of deterioration are in the majority of the ELCSA indicators.
93. **99% of the families that set up a domestic vegetable garden consider that this enabled them to diversify their family diet.** One of the most relevant activities that the project has performed to improve the diet of the families assisted, who form part of the four micro-watersheds located in the municipality of Candelaria de La Frontera and Metapán, is *setting up domestic vegetable gardens*. The food produced in domestic

²² For example, factors such as the reduction in the flow of shipments in the area, increased delinquency, increased price of the staple food basket, increased price of agricultural supplies; constitute some of the elements that affect some of the Project outcomes.

vegetable gardens mainly include, in the following order: radish, tomato, aubergine, *chipilín*, sweet peppers, cucumber, coriander, spinach, green beans, *pipián*, *loroco* and carrot.

94. Over half of the families consulted (52%) stated they had received assistance and/or support from the project in setting up a domestic vegetable garden over the last year. This figure is higher than that recorded in the Mid-Term Evaluation, in which only 30% stated that they had received support from the Project.
95. 99% of the families stated that what they had produced in their domestic vegetable gardens was for their own consumption, and only 1% stated that they were able to produce some surplus meaning they could sell the products. *In addition, 100% of the families consulted said that they would set up a domestic vegetable garden using their own means again.*

Figure 8 - Type of food produced in the vegetable gardens in accordance with the families who set such up with support from the project (number of families).



Source: Results of the survey of the Final Evaluation of the Project "Climate Change Adaptation to Reduce Land Degradation in Fragile Micro-Watersheds".

- *SCCF AMAT indicator 1.2.8: 10% change in the foreseen production of food in the area of intervention, taking CC into account*

96. **The production of food has increased by 15% in the project targeted areas.** This can be observed in families who keep their domestic vegetable gardens; in the production of vegetables in a protected environment and outdoors; the production of eggs and meat using poultry modules; the production of basic grains and the planting of fruit trees. Despite this, the variation or direct effect of the project cannot be quantified with precision because it lacks a M&E system that facilitates this. The information obtained by means of a survey shows a 15% increase in the area produced per family, from sowing on average 1.12 Mz in 2016-2017, to 1.29 in 2017-2018.

Similarly, the average production per family increased by 22%, from 31.8 quintals in 2016-2017, to 38.9 quintals in 2017-2018. The following table provides a breakdown of this information.

Table 3 - Comparative data regarding area of production of maize and amount of maize produced, in accordance with the results of the 2017 and 2018 surveys.

Year	Record of number of families	Total production area (MZ)	Area produced per family (MZ)	Total production obtained (QQ)	Production per family (QQ)
2016-2017	184	206.71	1.12	5 856	31.8
2017-2018	150	193.77	1.29	5 835	38.9
Difference (+/-)	-34	-12.94	0.17	-21	7.07
Growth rate			14.99		22.23

Source: Results of the survey of the Final Evaluation and Mid-Term Evaluation of the Project "Climate Change Adaptation to Reduce Land Degradation in Fragile Micro-Watersheds".

97. With regard to the productivity obtained in both periods, the result for the 2016-2017 period was 4.05 tonnes per Ha; and for 2017-2018 productivity increased to 4.29 tonnes per Ha²³. Both figures are above the target established in the indicator for year three (2.89 TN), or even of the same baseline (Proxy: 2.75 TN).²⁴

98. **Some of the factors that may have had an impact on the productivity of maize plots are related to some practices promoted by the project**, such as the use of cannavaia as coverage and incorporated into the soil; bokashi with the aim of retaining more humidity in the soil and for nutritional strengthening; use of mycorrhiza - beneficial fungi - and formulas of fertilisers high in potassium. It is worth mentioning that in both periods the rainy season was stable, and there was no drought.

- *SCCF AMAT Indicator 1.2.1.3: Five agricultural practices resilient to climate change introduced to promote food security*

99. Having introduced five resilient agricultural practices, the project reports 100% progress in the outcome indicator. The agricultural practices introduced are as follows:

- Zero emission fuel.
- Use of vegetative cover in the production of maize to reduce the use of herbicides and incorporation into the soil as organic matter.
- Use of mycorrhiza - beneficial fungi - in the maize to improve the root water consumption.
- Use of organic fertiliser to improve soil health.

²³ To perform this calculation the following conversions were taken into account: 1 quintal = 0.1 metric tonnes; and 1 manzana = 0.705 hectares

²⁴ In accordance with information gathered by CENTA regarding maize production in the Project targeted area, the average production reached in 2017 in maize plots was 1.85 TN/Ha, ranging from a minimum of 1 TN to a maximum of 3.6 TN.

- Improve the system of nutrition of the crop with complementary fertilisation.
- *SCCF AMAT Indicator 1.3.1: families and communities have maintained moderate access to livelihood assets (Score 3: 25-30% female heads of household)*

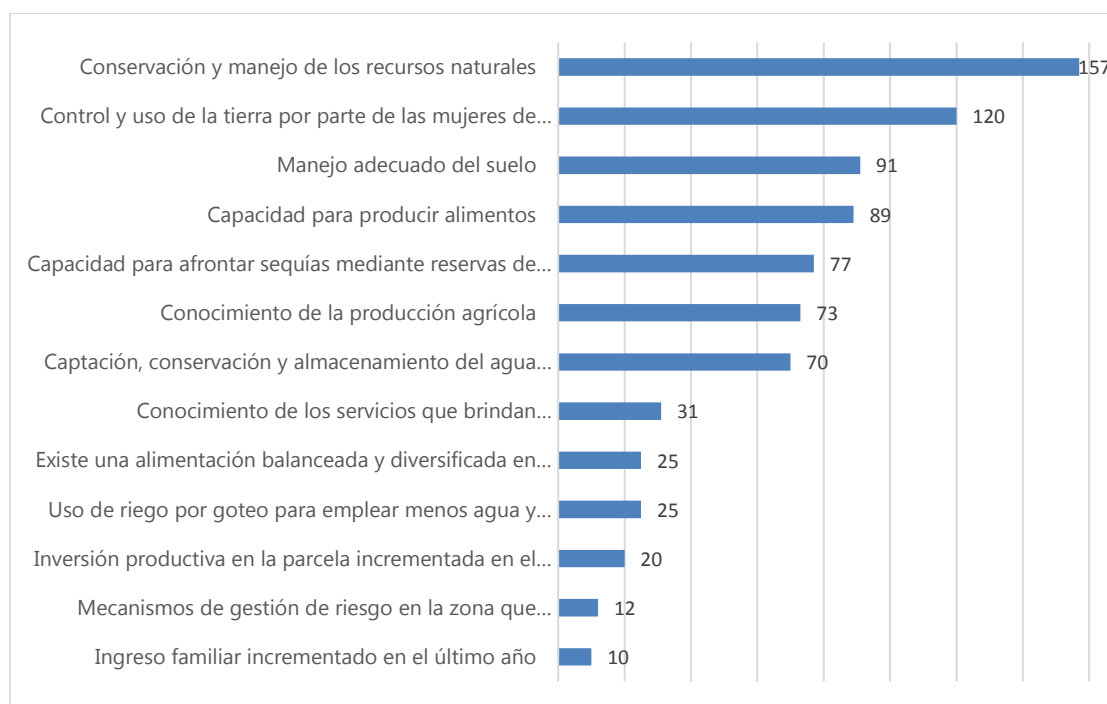
100. The variables taken into consideration by the project to analyse access to livelihood assets by the families and communities assisted in the four micro-watersheds located in Candelaria de La Frontera and Metapán, are as follows:

- Control and use of the land by women
- Use of drip irrigation to use less water and reduce waste of such
- Conservation and management of natural resources
- Knowledge of the services that support institutions in the area offer
- Ability to produce food
- Level of productive investment in the plot of land over the last year
- A more balanced and diverse household diet
- Family income in the last year
- Knowledge of agricultural production
- Soil management
- Capture, conservation and storage of rainwater to improve its use
- Risk management mechanisms in the area that make it possible to minimise potential damage
- Ability to address drought using water reserves and/or by replenishing aquifers.

101. **Of the 266 families consulted, 84% stated that they have access to at least one of these aspects**, the remainder did not respond or stated that their family and their community did not have any of these.

102. **The conservation and management of natural resources is the access to livelihood assets that the majority of the families consulted have.** 59% of the families have this livelihood asset, followed by the *control and use of the land by women from the community (45%), and the appropriate management of soil (34%)*. The following graph shows a consolidated view of the responses given by the families consulted.

Figure 9 - Summary of the responses given by the families belonging to the Project targeted area regarding their access to livelihood assets.



Source: Results of the survey of the Final Evaluation of the Project "Climate Change Adaptation to Reduce Land Degradation in Fragile Micro-Watersheds".

103. **Of the 13 elements used to measure access to livelihoods, the heads of households selected 3.58 of them on average;** this is why it is considered that they maintain moderate access to livelihood assets²⁵. It is worth pointing out that this data increased compared to the consultation performed during the Mid-Term Evaluation in 2017, when an average of 3.44 was recorded; a situation that denotes an approach to level 4 regarding secure access to livelihood assets.
104. Of a total of 223 families who stated having at least one subsistence asset, 38% have a woman as the head of the household.

Output 1.3.1 1 200 heads of household in the project targeted area have resilient production systems and better livelihood assets by means of the diversification of production activities (basic grains, vegetable plots and poultry modules) (25-30% are female heads of household)

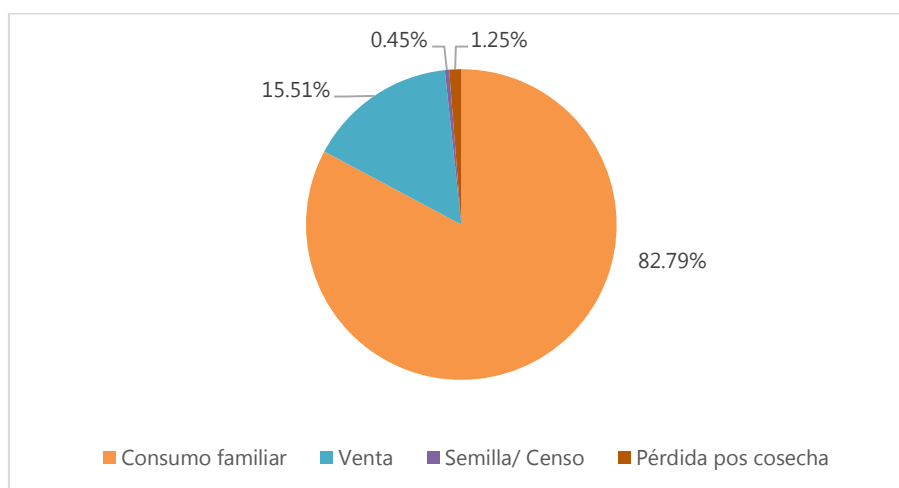
105. **The project has managed to cover the output indicator by 104%, as a total of 1 249 heads of household with resilient production systems was reported,** as a result of the strengthening of knowledge and better access to livelihoods in the families who prepare and make use of organic fertilisers, apply drip irrigation, protect water sources, harvest rainwater, apply prophylactic programmes in poultry, have greater awareness

²⁵ The measurement used for access to livelihood assets (subsistence assets) is given in the following manner: a) from 0 to 1 responses: does not have access to subsistence assets; b) two responses: poor access to subsistence assets; c) three responses: moderate access to subsistence assets; d) four responses: secure access to subsistence assets; e) five responses or more: very secure access to subsistence assets.

of "no burning" and who reforest, perform soil conservation work, handle stubble, among other activities.

106. In the specific case of maize production, the project began by training 150 families, with whom five agricultural practices were promoted leading to an increase in the productivity of 52 Has. These practices consisted mainly of the use of mycorrhiza - beneficial fungi - in maize seeds, organic fertilisers (bokashi), vegetative cover (cannavalia) and additional fertiliser reinforcements (phosphorus and potassium), as well as no burning of stubble.
107. Subsequently, in the second quarter of 2017, a new process was initiated with 100 additional families, increasing the area assisted from 52 to 87 Has. However, it is from the third quarter of 2017 that the Project recorded the highest level of assistance. 732 families producing maize join the training activities in which the aforementioned practices are promoted to increase productivity. This action made it possible to add 44 Has of maize production cover. *In total, throughout the Project 982 maize producing families benefited, in a total of 131 Has distributed across the four micro-watersheds that form part of their targeted area.*
108. In accordance with information provided by the families surveyed, on average the maize sowing area of each family is equal to 1.29 Mz, where 45% of the heads of household own the land, and the 55% remaining rent it out to be able to produce. The average production obtained from 2017-2018 amounts to 39.2 qq/year per family. The following chart shows what the maize production for this period was used for.

Figure 10 - Use of the maize produced by the families assisted by the Project in the municipalities of Candelaria de La Frontera and Metapán.



Source: Results of the survey of the Final Evaluation of the Project "Climate Change Adaptation to Reduce Land Degradation in Fragile Micro-Watersheds".

109. 45% of the population experienced losses in the production stage, 9% more than the data recorded during the Mid-Term Evaluation. In accordance with the heads of households who report losses, these equate to 31% of the area planted. There are two main reasons for these losses: prolonged drought (59%), and pests and diseases (38%);

the remaining 3% are distributed among causes related to the lack of technical assistance, poor quality seeds and landslides.

110. In addition, in coordination with the municipality of Candelaria de La Frontera, 36 household workshops took place which related to: the home and healthy spaces, management and storage of agro-chemicals, appropriate management of water, management of solid waste in the home, healthy habits, emotional wellbeing, family gardens, use of native plants for nutrition. Over these days 267 heads of household participated (229 women and 38 men), who were also supported through the provision of set kitchen utensils (161 families), water purification consumption filters (69 families), and improved laying hen modules (40 families).

COMPONENT 2: SOIL QUALITY ENHANCEMENT BASED ON THE INCREASE OF VEGETATION COVER, INTEGRATED NATURAL RESOURCE MANAGEMENT, SUITABLE LAND-USE, RECOVERING THE FLOW OF AGRO-ECOSYSTEM SERVICES IN FRAGILE MICRO-WATERSHEDS, WITH A GENDER-SENSITIVE APPROACH.

111. **The evaluation is satisfied regarding the achievement of Component 2.** The actions implemented by the Project geared towards increasing vegetation cover to protect and conserve the soil and aquifer system, as well as the promotion of integrated natural resources management practices have led to the achievement of the objective set forth. The following provides a breakdown of the main targets that make it possible to justify this statement:

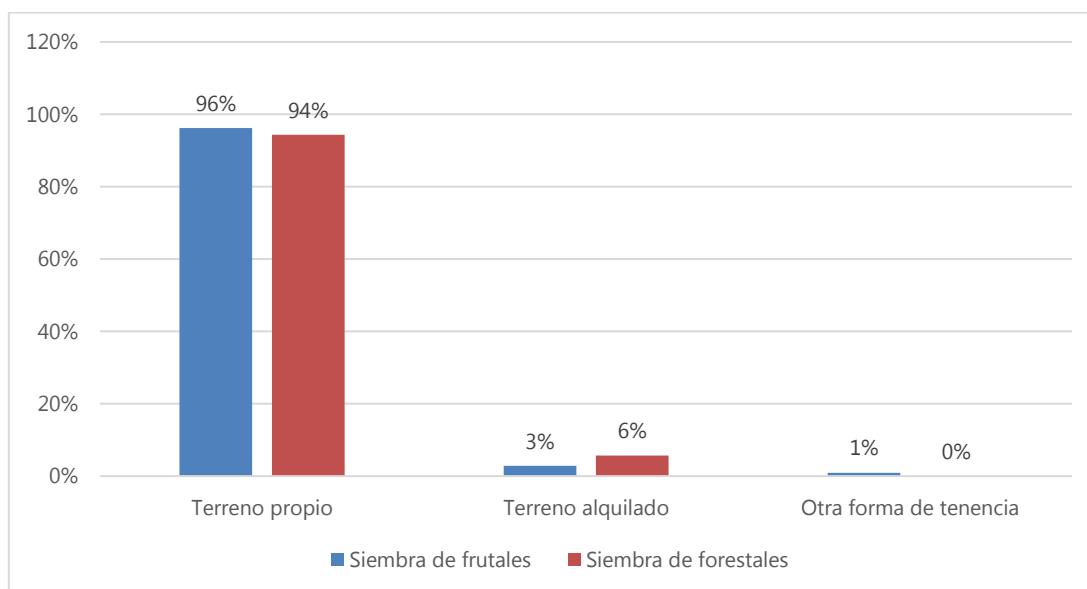
OUTCOME 2.1

IN THE PROJECT TARGETED AREAS, SOME SOIL HAS VEGETATION COVER (FRUIT TREES, FOREST TREES, GRASS, BUSH AND OTHERS) FOR SOIL AND WATER PROTECTION AND CONSERVATION

- 40% (1.541 ha) of the soil has vegetation cover (fruit trees, forest trees, grass, bush and others) for soil and water protection and conservation
112. **In accordance with information reported by the Project, work has been performed on the protection and conservation of soil and water in an approximate area of 1 757 Has, exceeding the target set forth by 14%.** To do so, planting fruit trees, forest trees, grass and seeds for live barriers was promoted and this made it possible to expand vegetation cover in the four micro-watersheds that were the subject of intervention by the project. Among the most relevant actions related to the protection and conservation of soil and water were the training days offered by the Farmer Field Schools (FFS), which took into consideration topics related to integrated natural resources management.
113. **Water and soil protection and conservation has been a process that has actively involved different local stakeholders,** as is the case of the municipality, the schools, the ADESCOS, as well as central government bodies such as CENTA and the Health Units. All of these bodies showed great dedication to tree planting activities, which to a great extent were based on work to raise awareness of the issue of CC developed by the unit executing the project.

114. From the questions posed to the families who planted trees in the four micro-watersheds, it was found that 100% of these trees were provided by the Project. As can be observed in the following graph, these trees were mainly planted on land owned by the head of the household.

Figure 11 - Type of tenure of property in the planting of fruit trees and forest trees.



Source: Results of the survey of the Final Evaluation of the Project "Climate Change Adaptation to Reduce Land Degradation in Fragile Micro-Watersheds".

115. Focus groups and community leaders estimated that losses in the planting of fruit trees could range from 30-40% in fruit trees, and in the case of forest trees up to 60%. An attempt was made to cross-check this aspect using a survey and the results of the information provided by the families consulted were in the case of fruit trees 29% losses, and 18% losses in the case of forest trees.
116. One aspect that the evaluation considers a weakness, is that there is no reliable measurement mechanism that makes it possible to establish exactly how much vegetation cover has increased, given that in all areas there are reports of losses of fruit trees and forest trees that are not quantified.

Output 2.1.1: Acquisition of local and external supplies, and provision of vegetation material for soil conservation (living barriers, living hedges, gully control) through establishment and strengthening of agro-forestry nurseries at household, community and municipal level, in the micro-watersheds.

- 40% of the soil in the project targeted areas have vegetation cover: 374 200 forest trees in living barriers; 33 000 fruit trees and 517 ha of grass (Total: 1541 ha)
117. In accordance with data provided by the Unit Executing the Project, material was delivered to extend the vegetation cover in the four micro-watersheds with forest trees, fruit trees and grass for livestock. *The total area being worked on amounts to 1,764 Has*

(1 336 Has worked on in 2016 - June 2017 and 428 Has worked on from July 2017 to June 2018). It is worth mentioning that of the 1 764 Has reported, 505 Has already had vegetation cover, and the rest was new area that has been expanded by the project. These activities geared towards increasing vegetation cover were accompanied by training.

118. *Fruit trees and forest trees.* In the period from 2016 to June 2017 the project had exceeded the target established regarding the plantation of fruit trees and forest trees, having acquired 35 850 fruit trees of the varieties: *avocado, mango, medlar, Persian lime, Valencian orange, mandarin and two types of jocote*; as well as 385 000 forest trees. From July 2017 to June 2018, the project acquired 5 650 additional fruit trees of the species: mango, medlar, lemon, Valencia oranges, mandarins and two types of *jocote*. 133 000 seedlings were also produced in nurseries located in the forest, of the species: Madrecacao, Shakiro, Cedro, Flor Amarilla, Leucaena, Moringa, San Andrés, Paterna, Nim Maquilishuat
119. *Improved grass.* The project also promoted varieties of grass with good capacities for adaptation to drought and high levels of protein. These varieties are: Mulato II, Caymán, Cobra and Mombaza. It is estimated that in the period from 2016 to June 2017, the varieties promoted reached 211 Has. From July 2017 to June 2018, the project continued with the distribution of grass seeds and additional vegetation material (*jocote, pineapple and vetiver*) for the living barriers to protect the soil. These actions took place in the first month of the third quarter of 2017.
120. In accordance with the population consulted, 5.25% have livestock units for the production of milk or meat. On average, the farmers of the project intervention area have seven heads of livestock. In the last year, only three heads of livestock have been bought and as such there is almost no increase in the cattle herds.
121. **86% of farmers stated that in the last year they planted improved grass.** The estimated planted area is 14 Mz within the sample selected. 93% of the area planted is land whose property belongs to the head of the household and the rest is in rented land. 94% of farmers stated that the seeds of grass they planted were provided by the project, and they bought the remaining 6% using their own funds.
122. An important data to take into consideration is the loss registered in the area planted. In accordance with information provided by the farmers in the intervention area, *the loss amounts to 29% of the total planted*, with the only cause recorded for said loss being prolonged drought.

OUTCOME 2.2

THE PROJECT TARGETED AREAS FOLLOW INTEGRATED NATURAL RESOURCES MANAGEMENT PRACTICES RESULTING IN SUSTAINABLE AGRICULTURAL PRODUCTIVITY AND A REDUCTION IN THE VULNERABILITY OF LOCAL COMMUNITIES

- *40% of the project targeted area (1 541 hectares) apply integrated natural resources management practices in the wider landscape*

123. **The indicator has been surpassed, with an area of 1 764 Ha worked on with forest trees, fruit trees and improved grass.** There are plots of maize that follow Integrated Natural Resources Management practices (INRM). There are also plots with intensive plant production that use drip irrigation, as well as plots using integrated management that employ the no burning practice, the use of organic fertilisers, the use of vegetation cover, fertilisation supplement to increase production levels, etc.
- *Level of agricultural productivity in the project pilot area (2.89 tn of maize per Ha/year total maintained over time) LD PMAT Indicator²⁶ 3.ii) three INRM methodologies (agro-forestry systems, conservation farming, management of water basins) applied in the wider landscape in the project intervention area*
124. As mentioned previously, productivity in 2016-2017 was 4.05 tonnes per Ha; and for 2017-2018 productivity increased to 4.29 tonnes per Ha. Both figures are above the target established in the indicator for year three (2.89 TN), or even of the same baseline (Proxy: 2.75 TN).²⁷
- *Three INRM methodologies (agro-forestry systems, conservation farming, management of water basins) applied in the wider landscape in the project intervention area*
125. The indicator is 100% covered as the project promotes agro-forestry systems, conservation farming and management of water basins, in its interventions with families assisted in the four priority micro-watersheds.

Output 2.2.1: Farmer Field Schools to offer training on INRM, and soil protection and conservation to families of the micro-watersheds in the municipalities of Metapán and Candelaria de la Frontera.

- *Six FFS implemented to generate skills for soil conservation and protection, among 192 families (25-30% heads of household)*
126. The output indicator has been covered in full. The Project established six Farmer Field Schools in order to generate skills for soil conservation and protection. Four FFS were established in Candelaria de la Frontera and two FFS were established in Metapán. In total, the Project recorded 190 heads of household (118 men and 72 women)²⁸.
127. In addition, as a result of the consultation process conducted within the framework of the Final Evaluation, 127 people stated that they had attended the Farmer Field Schools. The foregoing represents 48% of the sample selected in the Final Evaluation. 100% of people who attended the FFS believe that they have been very useful. Within the areas and/or themes covered in the FFS, the ones the attendees gave the highest rating to are, in the same order, as follows: 1) Improving production methods for basic grains and vegetables; 2) Practising integrated natural resources management; 3) Using organic products; 4) Establishing poultry modules; 5) Establishing drip irrigation

²⁶ Tool for Monitoring and Evaluation of the Portfolio, focus area of Land Degradation (GEF)

²⁷ It is worth mentioning that this information was obtained by gathering information through surveys.

²⁸ There were only two participants less than the established goal.

systems and optimising water resources; 6) Construction, management and maintenance of rainwater capture systems

128. One aspect worth pointing out is that as a side effect of the process, two entrepreneurial initiatives were created: one group of 13 women who produce vegetables commercially and one plant for the production of organic supplies (Bokashi, mountain micro-organisms and efficient micro-organisms, organic fertilisers and botanical insecticides), with the aim of improving soil fertility in a sustainable manner. Both endeavours took place in the El Guarero Cooperative, located in the Santa Gertrudis Micro-watershed.

Output 2.2.2: 128 demonstrative families (including 38 heads of household) trained in good agricultural INRM practices

129. The expected output has already been met in full as 133 families participated in training processes as Demonstrative Families (DF). 93 DF were trained in Integrated Natural Resources Management practices (INRM) by farmer field schools, and demonstrated the practices learned for irradiated families (IF).

Output 2.2.3: Five good agricultural practices are distributed among 1200 families in the project targeted area, by means of 128 demonstrative families (DF)

130. Seven Good Agricultural Practices (GAP) were disseminated by the project by means of 133 demonstrative families (93 in Candelaria de la Frontera and 40 in Metapán). In accordance with the Unit Executing the Project, the following GAP were distributed and were integrated into the study plans of the FFS and in Demonstrative Families: 1) drip irrigation, 2) promotion of production and use of organic supplies (Bokashi, organic fertilisers and pests, disease controllers), 3) agroforestry systems, 4) use of vegetation cover (green fertiliser), 5) poultry management (construction of chicken coops, prophylaxis and nutrition), 6) pasture management and 7) safety and risks in the use of agro-chemicals. . The needs for guiding the FFS were identified in a coordinated and participatory manner by the FAO and CENTA technical team and were developed in the same manner.

COMPONENT 3: INCREASE IN WATER QUALITY AND QUANTITY TO DIVERSIFY LIVELIHOODS AND INCOME SOURCES OF VULNERABLE SECTORS IN TARGETED MICRO-WATERSHEDS, ENHANCING PARTICIPATORY AND GENDER-SENSITIVE MANAGEMENT.

131. The evaluation is satisfied regarding the achievement of Component 3. The actions implemented by the project have made it possible to increase the quality and availability of water, and for families to have more secure access to livelihood assets. The following provides a breakdown of the main targets that make it possible to justify this statement:

OUTCOME 3.1

INCREASED WATER AVAILABILITY AND QUALITY IN THE PILOT AREAS OF THE PROJECT THROUGH THE PROTECTION OF WATER SOURCES, IMPROVEMENT OF

WATER SOURCE COLLECTION INFRASTRUCTURES, AND RAINWATER CATCHMENT AND CONVEYANCE SYSTEMS FOR HOUSEHOLD USE

- *SCCF AMAT indicator 1.2.4: Increase in water supply in the targeted areas by +9 500 m³*

132. The indicator has been fully fulfilled. This indicator had been fully fulfilled since the Mid-Term Review. The water sources restored and protected within the framework of the Project, are generating a total monthly availability of 15 189 cubic metres of quality water²⁹.

- *SCCF AMAT indicator 1.2.1.5: Three sustainable water management practices introduced to increase access to water for irrigation under current and foreseen CC: Protection of ten water sources, improvement of water source collection infrastructures, and rainwater catchment and conveyance systems*

133. The Project registered ten targeted and protected water sources. The identification and protection of water sources took place by means of a participatory process involving the communities. Each water source has a protection plan and monitoring actions to be completed by the community. The selection criteria for the protected water sources were based on: 1) the level of importance for the population, 2) the supply of water throughout the year, 3) the range of use.

Output 3.1.1 Families of the local communities in the project pilot areas actively participate in the protection of water sources.

- *Ten water sources with protection and management plans implemented in project pilot areas*

134. The project reports a total of ten water sources worked on, each one with its respective protection plan. As previously mentioned, the protection of water sources was a successful process that required extensive involvement by the community.

Table 4 - Water sources worked on and protected by the Project.

Town	Micro-watershed	Water sources
Candelaria de La Frontera	Santa Gertrudis	La Montaña I and II, El Manguito and Las Mesas.
	El Jute	El Marillo and La Colmena
	Mojarras Blancas	Piletas
Metapán	El Salitre	Izcaal, Pozo Don Rufino, La Cañada Agua Tibia and Guayabillas Agua Tibia

Source: Project Implementation Report (PIR) 2018. Project "Climate Change Adaptation to Reduce Land Degradation in Fragile Micro-Watersheds".

The project estimates that the protection of water sources involves direct benefits to 671 families.

²⁹ It is worth mentioning that this data was provided by the Unit Executing the Project; however, there is a limiting factor in that it is not possible to determine, for this Final Evaluation, whether the increase in the supply of water fulfils the necessary quality parameters.

Output 3.1.2 Families trained in construction, management and maintenance of rainwater harvesting systems for multiple uses (irrigation and human consumption), and who participate in shared decision-making, in communities located in the project pilot areas.

- 375 families trained in the construction, management and maintenance of rainwater harvesting systems for multiple uses (irrigation and human consumption) (175 led by women)
- 375 families participate in the management of individual and community rainwater harvesting systems

135. The Project has fulfilled the output indicator. 470 families were trained and 451 actively participated in shared decision-making, construction, management and maintenance of rainwater harvesting systems for multiple uses (irrigation and human consumption), within the 12 communities located in the four micro-watersheds, in the municipalities of Candelaria de la Frontera and Metapán

136. In particular in this output, the project reports the following results:

- 42 families were trained (theory and practice) in the establishment of individual rainwater harvesting systems, in the maintenance of infrastructures and in the appropriate and rational use of water. In addition, each of these families received a filter for the consumption of purified water.
- Training (theory and practice) was provided to 225 families on the protection and maintenance of water sources.
- 140 families participated in practical training on the infrastructure for the harvesting of water and integrated management of water resources.
- 294 families directly participated in the catchment and improvement of water systems in four communities belonging to the micro-watersheds: Mojarras, Blancas, El Jute and Santa Gertrudis, of the municipality of Candelaria de la Frontera.

137. As part of the consultation process performed by the Final Evaluation, 1 of four families stated that they formed part of the practical learning processes to improve water quality and quantity³⁰. 100% of heads of household who stated they had taken part believe that these were useful. When asking the families specifically how it helped them, they mainly answered in protecting water sources (90%); in protecting water replenishment (90%); constructing, managing and maintaining the rainwater harvesting systems (24%); and applying sustainable water management practices (51%)³¹.

OUTCOME 3.2

FAMILIES AND COMMUNITIES HAVE MORE SECURE ACCESS TO LIVELIHOOD ASSETS

- *SCCF AMAT indicator 1.3.1: The families and communities of the project intervention area have*

³⁰ This data was compiled based on the 266 families that constitute the sample.

³¹ The percentages correspond to the number of families who stated that participating in practical processes helped them with specific topics. It is important to mention that the families could select more than one option, due to having participated in more than one topic within the process.

poor access to livelihood assets (30% are women) Score 4: Secure access to livelihood assets (30% are women)

138. As mentioned in outcome 1.3, at least thirteen variables were analysed to determine the level of access that families have to livelihood assets. Some of the results obtained from the 266 families consulted in the micro-watersheds of El Jute, Santa Gertrudis, Mojarras Blancas (Candelaria de La Frontera) and El Salitre (Metapán) are as follows:

- 59% of the families stated that they have greater ability to conserve and manage natural resources
- 29% of the families stated that they have greater ability to tackle droughts using water reserves and/or through the replenishment of aquifers.
- 26% of families stated that they have greater ability to capture, conserve and store rainwater to improve its use, among others.

139. Of the 13 elements used to measure access to livelihoods, the heads of households selected 3.58 of them on average; this is why it is considered that they maintain moderate access to livelihood assets.

- *SCCF AMAT indicator 1.2.1.5: Two sustainable water management practices introduced to increase access to water for irrigation under current and foreseen CC.*

140. In addition to the construction of water conveyance systems for domestic and productive use, eight rainwater reservoirs and one water storage tank, the Project trained a total of 470 families on *sustainable water management practices*, of which 451 families actively participated in shared decision-making, the construction, management and maintenance of rainwater harvesting systems for multiple uses (irrigation and human consumption).

Output 3.2.1: Community rainwater harvesting systems for productive uses with the participation of local families including female heads of households

- *One community rainwater harvesting system for productive uses built with the participation of 12 local families, four of which are headed by women*

141. The construction of five community water collection and distribution systems for domestic and productive use is recorded, and this benefits 535 families belonging to three micro-watersheds of the municipality of Candelaria de la Frontera³². The five community systems have the capacity to provide 9 152 cubic metres of quality water.

Output 3.2.2: Water conveyance systems for productive uses have been established in the project pilot areas

³² One of the systems reported by the Project is in construction. This system is located in the micro-watershed El Jute, community of Cristalinas.

- 12 individual systems deriving from two multiple water conveyance systems for productive use in the project pilot areas

142. The water conveyance systems for productive uses and the participation of the communities in their establishment is detailed below:

- a) 40 rainwater collectors were established. These are individual 10m³ systems that were provided in coordination with the community, and with the support of the municipality of Candelaria de la Frontera.³³ In addition, the project provided a water purification filter to the 40 families that annually store 720m³ of quality water. In total, 40 families participated in the construction of individual rainwater conveyance systems for domestic use
- b) Rainwater reservoirs. 16 rainwater reservoirs were established that have a geomembrane coating, and have a capacity of 500 cubic metres each. Annually they store 5 450 cubic metres of rainwater and the water is used for productive purposes (crops and livestock). In total, 60 families participated in the construction of the reservoirs.
- c) Storage tank and distribution of water. The tank is supplied with water from the Guajoyo river and has a storage capacity of 250 m³ of water to irrigate 40 plots of land for vegetable crops in the El Guarero Cooperative located in the Santa Gertrudis Micro-watershed, of the municipality of Candelaria de la Frontera. 40 families participated in the restoration of a water storage tank for productive use.

COMPONENT 4: IMPROVING DISASTER RISK MANAGEMENT TO INCREASE ADAPTIVE CAPACITY TO CLIMATE CHANGE, IN VULNERABLE SECTORS LIVING IN TARGETED MICRO-WATERSHEDS

143. The evaluation rates the achievement of Outcome No. 4 as moderately satisfactory. The level of awareness among the population regarding the predictable adverse impacts of climate change has increased, and it is adopting measures to address it. However, the population has not improved its condition of vulnerability and the municipal and departmental response mechanisms must be consolidated to respond to extreme weather events. The following provides a series of findings that make it possible to justify this statement.

OUTCOME 4.1

50-75% OF THE POPULATION IN THE TARGETED MICRO-WATERSHEDS HAVE INCREASED THEIR LEVEL OF AWARENESS FROM "LOW" TO "MODERATE" OF PREDICTED ADVERSE IMPACTS OF CLIMATE CHANGE, AND HAS ADOPTED APPROPRIATE RESPONSE MEASURES.

- SCCF AMAT indicator 2.3.1: 50-75% of the population in the project targeted area is aware of predicted adverse impacts of climate change and appropriate response measures Score 2: There is a moderate level of awareness (50-75% of the population)

³³ The water collected two purposes: 90% for consumption and domestic use and 10% for productive use.

144. The project targeted area is limited to three cantons of Candelaria de La Frontera and 1 canton of Metapán. In accordance with the Municipal Management Information System (SIGMUNI)³⁴, 5 593 people live in the cantons of El Jute, Casa de Tejas and La Parada situated in Candelaria de la Frontera; while 1 041 people live in the canton of El Shiste de Metapán. *On average, a family consists of 4.1 people, which indicates that all families in the four cantons amount to 1 618.*
145. In addition, the project records a total of 1 249 heads of household with resilient production systems, as a result of the strengthening of knowledge and better access to livelihood assets. Consequently, it can be affirmed that the indicator has been fully fulfilled given that 77% of the population in the project intervention area is aware of the predicted adverse impacts of climate change and of appropriate response measures. This therefore indicates that there is a moderate level of awareness.

Output 4.1.1 Rural families and small-scale farmers from the targeted micro-watersheds involved in risk reduction, preparation, response and recovery from disasters, including the contingency planning following a gender-sensitive approach.

- *50% of rural families and small-scale farmers from the targeted micro-watersheds (of which 30% are female heads of household) involved in the reduction of risk, preparation, response and recovery from disasters*
146. According to estimates of the Unit Executing the Project, 75% of families attended to in the four micro-watersheds participated in the development of skills and information sessions regarding Disaster Risk Reduction (DRR). Some of the activities linked to the topic of DRR that took place from July 2017 - June 2018 are as follows:
- 20 theoretical and practical DRM training workshops.
 - Three courses on the management of forest fires, training 70 members of the municipal brigades against forest fires in the municipalities of Candelaria de la Frontera (30) and Metapán (40)
 - Provision of one toolkit and fire extinguishing equipment for three brigades: a) El Shiste community, b) Forest fire management board for the community of La Barra, and c) Municipality of Candelaria de la Frontera.
 - Provision of six emergency toolkits and to complement this first aid kits were provided to the brigades to combat forest fires.
 - Four automatic weather stations were provided to control five weather parameters (rainfall, temperature, relative humidity, windspeed and direction) to improve the recording of data, and as a reinforcement early warning system (EWS) in the communities of the municipalities of Candelaria de la Frontera and Metapán.

OUTCOME 4.2

VULNERABILITY AND RISK PERCEPTION INDEX DISAGGREGATED BY GENDER HAVE INCREASED

³⁴ See: <http://sigm.gob.sv/>

- *Vulnerability and risk perception index disaggregated by gender: level 3 (medium vulnerability)*³⁵

147. There are at least three aspects that must be taken into consideration to analyse the vulnerability of the families to risks caused by CC. These aspects are related to their nutritional status, housing conditions and productive activity³⁶. Among these variables there are a variety of elements that help to determine whether a family has increased or decreased its vulnerability. For example, in the case of housing conditions, it is important to know what characteristics the homes within the priority micro-watersheds have on average: roofing material, wall material, flooring material, basic amenities it has, space available for cultivation, etc. The same occurs for the nutritional element that may be based on the variables defined in the ELCSA survey; and in the case of productive activity conditions, may take into consideration elements related to the level of losses in crops, number of families that have domestic vegetable gardens, trained families, among others.

148. By taking the variables pointed out into consideration and assigning them a rating depending on their level of importance, the following calculation formula was established³⁷:

149. Vulnerability index (VI) = 0.4 * nutritional factor + 0.3 * productive factor + 0.3 * housing factor

150. Consequently, the index suggested is as follows:

Vulnerability index (2018)

$$VI = 0.4 * 0.631 + 0.3 * 0.685 + 0.3 * 0.630$$

VI= 0.647

151. It is worth mentioning that the closer the vulnerability index is to 1, the less vulnerable the families assisted by the project will be. In this respect, **the level of vulnerability has increased given that by using the same variables for its preparation, the result is 0.103 lower than that registered in the Mid-Term Review (2017)**. The information used as a basis for the construction of the index comes from surveys given to heads of households within the framework of the Final Evaluation.

- ***80% of the population in the intervention area is covered by climate risk mitigation measures (disaggregated by gender)***

152. The project reports that 75% of the population forming part of the communities in the targeted area has been trained, organised itself into DRR committees and has a team to reduce the risk of disasters. However, the mitigation measures result from all of the services that the project has provided and that attempt to counteract or reduce the

³⁵ There is no definition of the vulnerability and risk perception index, and as such the result is measured by means of an approximation based on the perception of the families consulted.

³⁶ The methodological recommendation proposed in the Mid-Term Review of the Project is taken up again. However, this is not limited to the possibility that more aspects may exist, or even other variables that better explain the conditions of vulnerability of the families assisted in the four micro-watersheds.

³⁷ The calculation of the index is provided in more detail in the appendix.

negative impact of climate change resulting from greenhouse gas emissions and/or to increase the elimination of carbon using carbon sinks³⁸.

153. In this respect, the project has made significant efforts to extend the vegetation cover by reforesting the targeted area. A high amount of fruit trees and forest trees have been provided, benefiting not only those registered as direct beneficiaries of the project, but also families who indirectly improve their quality of life due to forming part of the targeted area.

154. Other actions promoted by the project that constitute climate risk reduction measures are: a) the establishment of nurseries with forest trees, in Candelaria de La Frontera and Metapán; b) the promotion of good practices for sustainable livestock farming in the area; c) improvement of the drip irrigation systems to make more efficient use of water resources, therefore avoiding the run-off that erodes the soil. Similarly, the project promotes practices that are environmentally-friendly with the elimination of burning, the increase in organic production and the rational use of fertilisers, the protection of water sources and water replenishment areas, among others.

- *Three activities to reduce risk and increase awareness performed at local level*

155. The project shows 100% progress in the indicator as during its implementation it has been systematically developing a series of activities geared towards reducing risk and increasing awareness at territorial level, within the municipality of Candelaria de La Frontera and that of Metapán.

156. Some of these actions are listed below:

- Institutional strengthening to increase capacities to adapt to CC
- Cartographic information systems induction
- Diversification of agriculture
- Improvement in the resilience of agricultural systems
- Sustainable forestry management
- Support for livelihood assets
- Drip irrigation system
- Water storage
- Sustainable management of land and of water

Output 4.2.1: Climate risk, biophysical and social maps prepared by the communities that include the whole population, with signage systems and secure locations for local evacuation.

- *Six climate risk, biophysical and social maps prepared by the six communities that include the whole population, with signage systems and secure locations for local evacuation.*

157. **Four biophysical and social maps have been prepared covering the whole current target population of the project.** The maps correspond to the micro-watersheds of Mojarras Blancas, Santa Gertrudis and El Jute of the municipality of Candelaria de La

³⁸ Source: Mitigation of climate change and adaptation to it in agriculture, forestry and fisheries, FAO.

Frontera; and the micro-watershed El Salitre of the municipality of Metapán. The maps include the design of 12 signage systems in 12 communities belonging to the 4 micro-watersheds. The risk maps were prepared in ArcGIS in a participatory manner with the technical support of DGFCR/MAG.

158. **Additionally, an early warning system (EWS) was developed and focused on drought**, a recurring phenomenon that affects the majority of communities in the four micro-watersheds. This tool takes soil, climate and socioeconomic measures into consideration. The system designed is versatile and linked to the work of the different institutions at local and national level. The Project also supported the preparation of a kit to monitor the implementation of the EWS (booklets of records, pluviometers and thermometers) in ten communities of three micro-watersheds in the municipality of Candelaria de Frontera.

Output 4.2.2: Municipal and departmental response mechanisms for extreme weather events include the population of the target micro-watersheds

- *Six municipal and departmental response mechanisms for extreme weather events encompass 70-90% of the population of the target micro-watersheds*

159. The Unit Executing the project reports that this activity has made 95% progress. Progress has been made in the micro-watersheds of Mojarras Blancas, El Jute, Santa Gertrudis (Candelaria de la Frontera) and El Salitre (Metapán). Actions have been coordinated with the General Directorate for Civil Protection (DGPC) to contribute to the design of municipal and community response mechanisms to extreme weather events. In this context, the DGPC is planning the provision of an institutional validation workshop.

Output 4.2.3: Action plans to respond to weather-related emergencies and disasters and reduce losses attributable to the weather, adopted by municipal and departmental governments in two pilot areas, one in each municipality involved

- *Two action plans to respond to weather-related emergencies and disasters and reduce losses attributable to the weather, adopted by municipal and departmental governments in two pilot areas, one in each municipality involved*

160. The project exceeded the target by drafting four community risk management plans, one for each micro-watershed prepared in coordination with specialists from the General Directorate for Civil Protection, and risk management committees in 12 communities (Boca de la Montaña, La Garita, Los Lotes, Casas de Teja La Colmena, El Jute, Cristalinas, Hacienda San Miguel, Aldea Bolaños and Hacienda San Rafael, El Shiste and Guayabillas). These management plans are in line with two pre-existing municipal action plans in the municipalities of Candelaria de la Frontera and Metapán.

161. A complementary activity to the plans is the development and implementation of 81 practical training workshops related to non-agricultural rural activities (ARNAS) in the settlements of La Garita, Casa de Teja, Aldea Bolaños, El Jute, Cristalinas, El Shiste and communities in Guayabillas. These actions have been performed in coordination with the CENTA gender and entrepreneurs unit and the municipalities, and to date have enabled the development of 13 established productive micro-companies: Nixtamal mill

(1), incubators (2), bakeries (3), patisseries (1), metallic structures workshop (3), milk processing (1), *tamale* seller (1), maize leave handicrafts (1). 127 heads of household have directly participated in these processes.

1.3 Efficiency

Evaluation question 3: Have the intervention modes, institutional structure and financial, technical and operational resources and procedures available helped or hindered the achievement of the project outcomes and objectives?

Finding 4: Most of the intervention methods, institutional structure, resources and procedures used, helped to achieve the project outcomes and objectives with the exception of two aspects: the almost one-year delay to sign the letter of agreement with CENTA and delays in acquiring certain supplies and services that had a negative impact on the performance of the project.

Finding 5: A monitoring and evaluation plan and strategy was designed using the baseline and indicators identified in the outcomes matrix. The strategy could not be implemented as foreseen given that the information generated by the monitoring systems of the national institutions were not sufficiently aligned to be able to fulfil all of the project's specific information needs. Certain deficiencies were identified in the quality of outcomes indicators that made it difficult to measure the achievements of some of these. A series of project risks were identified and the respective mitigation measures were incorporated.

1.3.1 Implementation and completion:

162. **FAO and the GEF were responsible for the supervision and provision of technical advice during the completion of the project.** In addition, FAO acted as the implementing agency, and offered the purchasing and acquisition services for the project using FAO rules and procedures, as well as the financial services to administer the SCCF/GEF resources. The project was implemented with the participation of the MAG, represented by DGFCR and CENTA, in coordination with MARN, MINSAL and local governments.
163. **A Project Steering Committee (PSC), chaired by the Ministry of Agriculture and with the participation of the Ministry of Environment, the Executive Director of CENTA, and the FAO Representative in El Salvador.** The PSC was scheduled to meet at least twice per year and its specific responsibilities were: (i) the general supervision of the progress made by the project and the achievement of the outcomes foreseen, (ii) decision-making in the course of the practical organisation, coordination and implementation of the project, (iii) facilitating cooperation between MAG, MARN, CENTA, MINSAL, FAO and the participating members of the project and the support of the project at local level; (iv) advising the Project Administration Coordination Unit (PACU), (v) ensuring that the co-funding support was provided effectively and where, and (vi) reviewing the half-yearly project progress reports.
164. **The PSC met up on three occasions throughout the project period, half of that planned.** This was due to the difficulty in arranging meetings with such high level officials at the same time. The meetings held were rated as very useful and served to make the responsibilities of the PSC effective. In this context, the decision made to relocate project operations from Texistepeque to Metapán is noteworthy. Similarly, the meeting of proprietors promoted coordination at all levels, which facilitated work between different members. The evaluation, however, believes that the PSC could not

have worked better. Its role could have been more strategic, for example, taking into account topics such as sustainability, a topic that is detailed further ahead.

165. **The PACU was responsible for the day-to-day operations of the project and had the participation of MARN, MAG, CENTA, MINSAL, the two municipalities and FAO.** PACU's role was to coordinate and implement the project by applying annual work plans. The PACU acted as the secretariat of the PSC. The PACU also coordinated the work and monitored the implementation of the project activities, resolving the problems that arose and made the collaboration between the national and local institutions effective. The PACU was responsible for monitoring the progress of the project and guaranteeing the relevant provision of supplies and products. The project coordinator was the person in charge of putting the work of PACU into operation.
166. The PACU, by its nature, was a fluid body and was not restricted to formal meetings rather the project coordinator consulted and followed procedures with the respective members to attend to any situation to the extent required. This flexibility enabled the project to develop activities and make adjustments (i.e. logistical) in real time. This type of arrangement also arose at field level, with the specialists from the different institutions collaborating closely with the members of the project team.
167. The added value of having structured the mode of implementation in this manner was having encouraged the interaction and collaboration of the different sectors, particularly at local level.
168. **The waiting time between the completion of the design work and the official start of the project was several years which led to a drop in interest and motivation by the members which had to be rekindled.** Negotiating and signing the agreement between FAO and CENTA took almost one year, due to the fact that new authorities took on positions in this institution and an introductory process had to be initiated and an explanation had to be provided of what the work was about. This delayed the start of project operations (component 2) by ten months. In operational terms, component 2 was linked to the other project components and consequently, the delay in this component had a negative effect on the other four components.
169. The agreement focused on the joint work with the Extension Agencies of CENTA in the municipalities where the micro-watersheds were located, and the participation of other units of the institution, such as: agroindustry, sales, seed technology, food technology, and gender, among others, was not taken into consideration when negotiating the agreement. This missed an opportunity to involve other dimensions into the project tasks.
170. However, the Gender Unit of CENTA took part once the project activities had begun. The Unit was proactive and introduced topics and used materials and resources available to it to reinforce the communities that benefited.
171. **Another aspect that hindered the implementation was due to the process of acquisition of goods and services.** On the one hand, the procedures established by FAO are complex and not flexible enough to adapt to the situations on the ground. For example, there is only one supplier in the country that offers seeds for pastures. To be able to proceed with this, additional authorisations and tests were required that took a

lot of time. In addition, the FAO-ES unit responsible for the acquisitions, attends to all projects and it has a high workload. The acquisitions processes require a lot of time and administrative effort. Consequently, there were cases in which supplies were delivered late, and with agricultural activities this meant losing a harvest cycle or a period of sowing for vegetation cover.

172. **The project managed to generate synergies with different stakeholders/bodies and therefore established efficient methods of collaboration.** During the design process, the communities and their organisations (i.e. the ADESCOS, water departments) the local farmers and their organisations (including the associations of livestock and agricultural producers), several committees of both municipal governments (i.e. civil protection committees, nutritional/food security committee), the Trifinio Municipal Association, a supra-municipal organisation and the Trinational Municipal Association of the Lempa River, were identified as key project participants. As explained further ahead, joint work with these bodies facilitated the achievement of the outcomes and established inter-institutional links.

3.3.2 Quality of the risk management and monitoring system

Monitoring system

162. **The monitoring system was designed according to the guidelines established in the ProDoc using an explicit strategy with a series of tools to put it in practice.** An analysis of the *Monitoring and Evaluation Strategy* shows that a great effort was made in designing a system that would be useful for partners of the project, to fulfil that set forth in the ProDoc. The indicators were validated in the induction workshop set forth in the ProDoc.
163. The ProDoc states that the monitoring system will ensure that "(...) the data collected will be sufficiently detailed in order that the specific outputs and outcomes can be traced". On reviewing the *Indicators and Processes Monitoring Matrix*, it is confirmed that the key categories were included (indicators, targets, means of verification, individuals responsible, etc.). The matrix encompasses the outcomes, is coherent and systematic, and the level of technical effort invested in its preparation is evident.
164. The matrix served as a guide to remind those implementing the project to compile certain data and include them in the different progress reports. In this context, the matrix, as a tool, fulfilled one of its aims: to promote monitoring work - this within the context of the aforementioned system weaknesses.
165. **The matrix also has a substantial deficiency regarding the quality of the indicators at outcome level that consequently makes it difficult to measure the achievements of some of these**, therefore complicating the final evaluation work. Using the "CREAM" criteria³⁹, the indicators were analysed and it was concluded that:
- Some indicators are ambiguous, and use concepts that encompass many aspects, which deserve to be disaggregated for greater precision;

³⁹ Clarity, Relevance, Economic, Suitability and Monitorable.

- The measurement of vegetation cover, area of application of integrated natural resources management practices among others requires more appropriate indicators;
- Many include targets that detract from the actual result expected to be obtained. The targets should be allocated to a specific column of the matrix;
- In some cases, the means of verification proposed would not necessarily offer the information required to use the indicators;
- The indicators of Component 5 (results-based management) within which the matrix analysed was prepared, measured "processes" or, in other words, outcomes. Together, these indicators are insufficient to determine the progress of the achievement of the outcome;
- The indicators used were those contained in the ProDoc (except for one relating to Outcome 1.3). Appendix 7 shows the detailed analysis of the quality of said indicators using the "CREAM" criteria with specific suggestions as to how they could have been improved.

166. **The monitoring and evaluation strategy was intended to include the main stakeholders that would generate information about the outcomes, outputs and indicators of the project, not create new instruments but instead make the most of those already existing.** The strategy, by means of the systematisation of information generated in a participatory and routine manner at local, regional and national level by the main members of the project, aimed to promote synergies and avoid the duplication of efforts. If necessary, instruments would be prepared to fill any shortage of information.
167. **The strategy could not be implemented as planned** given that aside from the delay experienced in initiating the implementation, the information generated by the monitoring systems of the national institutions was not sufficiently aligned to be able to fulfil all of the project's specific needs (something that the strategy itself had identified). Similarly, the areas covered also do not have the ongoing presence of officials from the national institutions and this made it difficult to gather data. The areas in which the project was implemented were difficult to access and this had a negative impact on the collection of information. In order to exceed the targets, given the rush of the implementation, the project employees took up the main role of generating the required information again. There were good intentions behind searching for synergies but the situation on the ground did not facilitate its application. The project compiled data related to supplies, activities, outputs and outcomes including information about beneficiaries disaggregated by sex based on the logical framework of the ProDoc.
168. **The strategy identified a series of risks for the implementation of such but the mitigation actions were very idle.** For example the following risk was identified: "Little involvement and participation of the local institutions in the micro-watershed coordination and monitoring mechanisms" which was considered to have a medium chance of occurring. The mitigation action proposed was: "Involvement in the implementation of the monitoring and evaluation strategy since the start of such." This action is insufficient to, of its own accord, mitigate the risk, and can propose additional measures such as technical support and/or resources for the institutions so that they may have the capacity to offer the necessary data.

169. **The project prepared a systematisation geared towards identifying specific lessons, good practices and the compilation of success stories.** The lessons learned section covers this work in more detail, but as an output it is also worth mentioning its role in the monitoring and follow-up of the project and the outcomes obtained. Of course, although the work is prepared at the end of the implementation, as was planned, the methodology used and the level of effort applied, is demonstrated in the quality of the report. The systematisation is an excellent contribution that complements this evaluation.
170. The final effect was that the monitoring system generated information that measured aspects of "processes" in a precise manner but was a little less effective in offering sufficiently appropriate data for certain outcomes. The evaluation team considers that the monitoring system was geared mainly towards informing the GEF and FAO about the implementation and not so much to promote the internal thoughts on possible adjustments. The systematisation work performed at the end of the project made it possible to offer a view of the scope but this comes too late to be a management tool (which was not its purpose).

Identification of risks

171. **The ProDoc identified a series of project risks and the respective mitigation measures were incorporated.** The evaluation considers that the design process was comprehensive enough in identifying the risks to the project and correct in its proposals for practical measures for its mitigation. The project team rated the risk management matrix as useful. The risks identified included the low participation of local institutions, which occurred in the case of the Town Hall of Texistepeque, and the project, by means of the Project Steering Committee, responded appropriately on replacing it with the Town Hall of Metapán.

3.3.3 Co-financing

172. **Co-financing of 7 959 370 was expected in the total budget at the start of the project and this was exceeded as the amount reported was 140% higher than that originally planned.** Table 5 summarises the state of co-financing at the conclusion of the project with regard to that planned in the ProDoc. It is expected that the project will use 100% of the funds assigned by the GEF. More details can be found in Appendix 6.

Table 5 - Budgetary status of the Project as at 31 May

Items	Upon approval from the CEO	Upon conclusion of the project
GEF funds	1 521 370	1 498 546
Co-financing	6 438 000	9 683 667
Total	7 959 370	11 182 213

Source: PACU

173. Two findings with regard to the project counterparts worth mentioning are:

- Most of the increase in co-financing is due to the family packages provided by the MAG. In addition, the contributions not originally foreseen from entities such as the town halls and organisations including the Trinational Border Association contributed to the increase;
- The MAG contribution (family packages) encompasses the whole Department of Santa Ana and not only the micro-watersheds benefited by the project.

174. The co-financing was disaggregated as follows:

Table 6 - Disaggregation of co-financing

Name of co-financier	Type of co-financier ⁴⁰	Type of co-financing ⁴¹	Co-financing at the start of the project.			Co-financing materialised at the closing of the project.		
			In-kind	Cash	Total	In-kind	Cash	Total
MAG	CENTRAL GOVT.	Cash	0	6 000 000	6 000 000	0	8 834 963	8 834 963
DGFCR	CENTRAL GOVT.	In-kind	180 000		180 000	203 807	0	203 807
CENTA	AUTONOMOUS INST.	In-kind	158 000		158 000	140 800	0	140 800
MARN	CENTRAL GOVT.	In-kind	0			56 732	0	56 732
DGPC	CENTRAL GOVT.	In-kind	0			108 093	0	108 093
CDLF TOWN HALL	LOCAL GOVT.	In-kind	0			108 587	0	108 587
FAO		In-kind	100 000	0	100 000			
METAPAN TOWN HALL	LOCAL GOVT.	Cash/In-kind	0			109 733	0	109 33
TRINATIONAL ASSOCIATION	ASSOCIATION	Cash/In-kind	0			6 950	14 000	20 950
OTHERS			0			0	0	0
Total			438 000	6 000 000	6 438 000	734 704	8 848 963	9 583 667

Source: PACU

⁴⁰ Examples of categories include: local, provincial or national government, semi-governmental autonomous institutions, educational and research institutions, the private sector, multilateral or bilateral organisations, not-for-profit organisations and others.

⁴¹ Grant, loan or direct participation of the beneficiaries (individuals) in the capital in cash, contribution in-kind or material.

3.4 Normative values

3.4.1. Participation

Evaluation question 4a: To what extent has the Project, in its work with local communities, ensured the participation and empowerment of all the stakeholders in the decision-making process (including the implementation of activities)?

Finding 6: The project actively promoted the participation and empowerment of all the stakeholders (men and women) in the decision-making process, and paid attention to and involved the groups in the different micro-watersheds. This was evident from the design stage and during the rest of the project cycle.

175. A feature of the project design was its use of participatory processes, consulting at different times the institutional stakeholders and the communities, therefore creating spaces for the identification of needs and priorities to be attended to.⁴² This process generated high expectations and commitment among the partners but given that several years passed between the conclusion of the initial consultations and the initiation of the activities, there was a dip in the level of enthusiasm, which took some months to overcome.
176. The evaluation confirmed with the communities that these were duly informed, consulted and involved in the different stages of decision-making and the coordination of activities. The beneficiaries explained that this type of involvement resulted in them feeling more committed as they identified themselves as the proprietors of the outcomes that they aimed to achieve.
177. **Another of the factors that the participation of the beneficiaries provided was using the appropriate methods to convey knowledge and distribute information relating to the project.** The project employees and employees from the other institutions successfully used planning meetings with family and community groups, practical training (FFS), workshops, field tours/days and experience exchange tours. CENTA specialists had worked beforehand on the Family Agriculture Plan (FAP) where they had acquired experience in the use of inclusive transferable methods, which helped to increase participation. Members of the communities expressed that they noticed that the specialists who accompanied them did so out of their own social conscience, in solidarity with the communities, and not just as one more job.

3.4.2. Gender and young people

Evaluation question 4b: To what extent has the Project addressed gender equality issues in its design and contributed to the empowerment of women, young people and other vulnerable groups throughout its completion?

Finding 7: The project strategy was to be inclusive, putting families at the centre, as all of the communities that participated were vulnerable. The ProDoc frequently mentions

⁴² The work plan of the team that designed the project included four months dedicated to consultation workshops with the different stakeholders.

"gender-sensitive approaches" but is not explicit in how that would translate into actions that would meet the specific needs and circumstances of women and young people. Halfway through the execution of the Project, the topic of gender equality was promoted in a more comprehensive manner with the support of the Gender Unit of CENTA. Although it was not set forth in the PRODOC, actions were performed that promoted the participation of young people in non-agricultural productive businesses, and actions to protect natural resources.

Gender

178. **The ProDoc frequently mentions that the project will be based on "gender-sensitive approaches" without elaborating on what this meant in practical or operational terms.** Components 1-3 have the phrases "based on a participatory and gender-sensitive approach" (1), "based on a gender-sensitive approach" (2) at the end of each of their descriptions. Similarly, without offering more details, the ProDoc identifies that one of the factors for guaranteeing social sustainability would be:

- "Gender equality and the gender perspective at institutional and community level. The data will be broken down by sex to monitor the differentiated impact of the project and the families headed by women will be particularly involved and represented in all of the project's decision-making stages and activities."

179. **Per se, the project assisted the families of the micro-watersheds in an equal manner and, in fact, a substantial percentage of these were headed by women but it did not prepare a strategy that detailed exactly how the gender approach would be achieved.** For example, of the 1 200 families that actively participated in the project activities, 404 of these were headed by women (33%) but this was not due to these homes being prioritised rather that was the situation in the areas benefited. On carefully analysing the outcomes, it was found that the "gender-sensitive approach" was actually limited to gathering and reporting data broken down by sex.

180. By way of example, table 7 shows the data of participants in several activities performed by some members of the team in the period from July-December 2016. This example, picked at random, is typical and shows that despite the aforementioned limitations, the project nevertheless reached significant numbers of women.

Table 7 - Participation by sex in a sample set of activities (July-December 2016)

TOPIC	OBJECTIVE	PARTICIPANTS BY SEX	
		M	F
"Course on Handling Geographical Information Systems applied to Natural Resources"	Strengthening the capacities of specialists from MAG, FAO and the academy in the "Handling of Geographical Information Systems applied to Forest Resources" at basic level	11	7
"Workshops on the strengthening of capacities relating to Integrated Natural Resources Management with an approach	Strengthening institutional capacities in topics regarding water resources and the management of risks in the face of the adverse impacts of Climate Change.	30	8

focusing on Water and the Management of Risks"			
Activities to raise awareness about climate change adaptation measures.	Training communities of the micro-watersheds included in the project about climate change and the adaptation measures that they can implement in their territories.	396	374
El Jute Micro-watershed Reforestation.	To raise awareness of the importance of reforestation for protecting the soil in a practical manner among young people in the micro-watershed.	60	40
"Workshops on the strengthening of capacities relating to Integrated Natural Resources Management with an approach focusing on Water and the Management of Risks"	Strengthening the technical capacities of the institutions that support the project, in systems that help to simplify the processing and visualisation of the geographical information for subsequent decision-making.	14	9
	Total	511 (54%)	438 (46%)

181. **As the project implementation progressed, the specialists made an effort to promote the participation of women in the activities and so that they would take on leadership roles.** This was of some value but it was from 2017 that it began more systematic work on gender topics through the incorporation of the CENTA Gender Unit into the project activities, particularly in component 2. The Gender Unit began its support for the similar posture that it had with PACU to improve the gender-sensitive approach. This collaboration, which was originally not contemplated, made it possible to shift different initiatives that were taking place in a more appropriate direction.
182. **The Gender Unit provided support by training the project specialists in the topic, providing workshops with the communities and making use of educational materials** at its disposition. The topics that the Unit presented included:
- Female Leadership
 - How we learn to be Women and Men
 - How to Live Well Together
183. One of the activities viewed favourably by the beneficiaries were the Household Workshops. Using a participatory method, the workshops promoted a change in behaviour and empowered mothers, fathers and people in charge of looking after minors to:
- Develop appropriate dietary and health practices (healthy home);
 - Establish good child-rearing practices among mothers, fathers and/or carers of children, sharing the practices with people from the community;
 - Teach sanitary practices to early infants and
 - Rehabilitate children below five years old who present with any degree of malnutrition.

184. The modules included healthy homes, healthy spaces, healthy and positive communication with your partner, and shared responsibility, among others. The workshops were provided to 277 families, with 90% participation by women.
185. The evaluation considers that the aforementioned actions have, to a great extent, contributed to the financial empowerment of women by means of training and provision of supplies, therefore subtly promoting shared responsibility for housework. Similarly there has been a high degree of diversification in the livelihoods of men and women. The introduction of production activities not common to the project areas enabled family groups to diversify their sources of income and improve their dietary and nutritional security.

Young people and adolescents

186. **Within the project actions, although it was not set forth in the PRODOC, actions were performed that enabled the participation of young people and adolescents** (school age) mainly in non-agricultural productive businesses, and actions to protect natural resources (nurseries and reforestation).
187. The Gender Unit also contributed to the actions with young people that were mainly geared towards promoting entrepreneurial actions while always maintaining a gender-sensitive approach. For example, they gave talks related to entrepreneurial skills whose modules were designed in such a way that they made it possible to acknowledge the importance of a gender perspective in the personal as well as in the professional sphere, for the implementation of entrepreneurship.

3.5 Sustainability

Evaluation question 5: How sustainable are the outcomes achieved by the project at an environmental, social, financial and institutional level?

Finding 8: In general terms, it is very unlikely that the outcomes obtained by the project are sustainable in the medium and long term without additional resources, technical assistance and initiatives to consolidate that achieved. The knowledge and experiences acquired by the beneficiaries have established a starting point but formal and periodic accompaniment is required by the different central and municipal institutions.

Finding 9: The right mode of execution was used as it was based on the coordinated interinstitutional work and participatory activities in order to promote the sustainability of that achieved. The strengthening of (institutional and community) capacities is another element that contributes towards sustainability to a certain degree. Unfortunately the lack of a comprehensive exit strategy, with the commitments acquired and resources allocated by all of the parties, puts a lot of that achieved at risk, as having had the work experience is not sufficient in itself.

3.5.1 Appropriation and institutional capacity

Technical capacity generated at local government and public institution level

188. The evaluation acknowledges the strengthening of technical capacities achieved at institutional level. The MAG/DGFCR, CENTA, MINSAL, DGPC and specialists from the municipalities have acquired and reinforced knowledge on topics relating to Climate Change and their adaptation proposals, Integrated Natural Resources Management (INRM), Disaster Risk Reduction (DRR); which must be replicated in the assistance processes they offer in the communities. One of these items of knowledge, which is additionally highly valued by the specialists from the aforementioned institutions is the handling of software (ArcGis) on Geographical Information Systems.
189. In addition, the Project generated guideline documents to give continuity to the actions that were being performed. A Management Plan was created for each micro-watershed (four in total). However, the main legacy consists of the Methodological Guide for the preparation of Fragile Micro-Watersheds Management Plans (FMWMP) as it constitutes an instrument that can be used by any institution in other micro-watersheds of the country and that does not necessarily correspond to the Project targeted area. That is how the MAG/DGFCR in coordination with the Korean Cooperation, will use the Guide as a methodological input within the framework of a Project which is being managed for the eastern area of El Salvador⁴³.

⁴³ This information was provided by the General Directorate of Forestry, River Basins and Irrigation Management of the MAG. The evaluating team subsequently stated on the MAG website that the project has programmed an investment of 8 million dollars and that it will last four years. The project components are: (a) Capture and Storage of water for agricultural and domestic use (b) Soil Restoration, (c) Forest Restoration, (d) Strengthening of Capacities for building resilience to improve people's livelihoods. See MAG: <http://www.mag.gob.sv/el-salvador-y-corea-subscriben-proyecto-en-respuesta-al-cambio-climatico/>

190. **Commitment of the local governments and public institutions to finance actions linked to the environmental and development objective of the Project**
191. The institutional support must be comprehensive and must not only guarantee coverage in terms of assistance but also in terms of quality. To achieve this, it is essential that the institutions continue to work in a coordinated manner. In this respect, the evaluation points out the level of interinstitutional coordination that was achieved with the project, considering that prior to its implementation, the relationship was practically non-existent. However, this is a process that could have been consolidated and strengthened more as part of a Project exit strategy. Greater interinstitutional coordination would enable economies of scale as well as the efficiency of actions promoted in the territories. There is no sign of a post-project sustainable communication mechanism among the support institutions and the communities.
192. In addition, despite the technical capacity and instruments generated, the institutions are faced with financial limitations that would not make it possible to give continuity to the different actions promoted by the project until June 2018, at least not at the same level of assistance and coverage as was provided.
193. **In the specific case of the municipalities, many of the resources are pledged and maintain a high level of demand from other actions that are not connected to the project objectives that constitute huge outlays for them.** Consequently, in the best case scenario they will maintain some actions or support, such as the establishment of municipal nurseries. The municipality of Candelaria de La Frontera has shown an interest in continuing to promote the Nutritional and Food Security Committees but acknowledges that other actions such as the conservation of natural resources requires vast investment, and consequently, it will not be able to support it at the level of intensity it requires. On its part, the municipality of Metapán states that it does not have the capacity to support the project communities although it has experience in the establishment of nurseries.
194. **In the case of CENTA, its room for manoeuvre is quite limited and there is no possibility that it will provide more technical or financial resources to the targeted area.** In this context the line of work is such that no new families will be added to those that the specialist already assisted, even before the arrival of the Project. The specialist team will be able to monitor the farmers but less frequently. This indicates that on exit from the Project, the level of assistance will reduce significantly as well as the provision of resources.
195. Both the DGFCR and the DNPC state that the resources they currently have available are insufficient for maintaining the level of intensity that there was although they will try not to detach from the territories or the communities.
196. On its part, the MARN reflects its institutional commitment to the Project objectives by means of the implementation of the National Plan for Climate Change of El Salvador, the El Salvador National Plan for Integrated Water Resources Management, and reforestation of one million hectares in the country, among other actions. MINSAL, on its part, states that the environmental aspect has been included within the axes of the health policy since 2014. The challenge faced by these actions is how to materialise

themselves at territorial level and whether, on doing so, they consider the communities that form part of the four micro-watersheds assisted by the Project.

3.5.2 Environmental sustainability and appropriation by the beneficiaries

197. **The evaluation found that the vast majority of families consulted, as well as the community leaders are committed to continuing to implement actions leading to stopping and reverting the current global trends in land degradation;** and to increase and improve the provision of goods and services from agriculture and forestry in a sustainable manner.
198. Families have acquired the necessary knowledge to promote Integrated Natural Resources Management (INRM), Disaster Risk Reduction (DRR) and adapt better to Climate Change (CC). Proof of this is that 100% of the heads of households consulted consider that having participated in the FFS was useful, as was participating in practical learning processes to improve the quality and quantity of water in the area. In addition, 100% of the families continue to want to establish domestic vegetable gardens, because among other factors, this has enabled them to diversify the diet in their home.
199. The evaluation confirms that there are conditions that have been generated within the Project framework, geared towards achieving environmental sustainability. Despite this, other external factors to the appropriation by the beneficiaries raise doubts as to whether this objective will be fulfilled. For example, the Fragile Micro-Watersheds Management Plans produced by the population in a participatory manner require not only a high level of involvement by the communities by means of the management groups that have been formed in each micro-watershed; but it is also necessary to have the support and the resources required to implement a good number of the activities that have been defined in the Plans and that are in line with the environmental sustainability of each micro-watershed.
200. **The communities have committed to continuing, with the limitations they face on resources, the MIRM actions and CC adaptation actions.** Some initiatives are easier to maintain as is the case of the water systems that have been established, where there is a level of organisation around the initiative, in which a rate per home to maintain the system has been defined. However, other actions such as reforestation and conservation are more difficult to maintain without institutional support. Consequently, the little capacity that the different institutions have to accompany the communities puts the long-term sustainability of the achievements at risk.

3.5.3 Social sustainability

Communication and institutional capacity to continue with the coordination actions and support for the communities

201. The basis for achieving effective communication between the support institutions and the communities is that the latter have an acceptable level of organisation. In this respect, the Evaluation found that said organisation exists as well as the leadership by men and women in the communities that form part of the Project targeted area.

202. The communities already had a good level of organisation prior to their involvement in the Project activities. However, it must be pointed out that the project has contributed to generating greater social cohesion as a result of a series of activities carried out that required the involvement of all of the local stakeholders, and mainly of families. This is the case, for example, of the actions that took place regarding the reforestation of the four micro-watersheds (filling of bags, digging of holes, transfer of material, planting of trees, etc.) in which heads of household from all of the community took part, as well as students, teachers, the church, the municipality and specialists from various institutions.
203. Furthermore, the Project enabled substantial changes in the population's level of knowledge about the effects of climate change and the appropriate responses for achieving appropriate adaptation⁴⁴. Some families became aware of the problem, for the first time, on the basis of the awareness-raising workshops conducted. This level of understanding of the problem forms an important basis to continue with CC adaptation actions, INRM and disaster risk reduction. However, as previously mentioned, it is fundamental that the communities continue with institutional support, as they lack financial resources that stunt the wish of the families and stop all of the knowledge acquired being put into practice.

3.5.4 External risks to sustainability

204. Three risks have been identified that could affect the consolidation of the achievements: 1) political differences between the central and municipal level that impede dialogue and the transfer of resources; 2) lack of financial and human resources required for the sustainability of the outcomes (in the institutions and communities) and; 3) the insecure situation in the project targeted area.
205. In relation to the political risk, during the implementation of the Project the Executing Unit (supported by FAO) adopted a facilitator role and promoted the coordinated work between the Central Government institutions and the municipalities, regardless of the political status or party line that these had. This meant that the attribution of achievements for political gains was diminished; but there is no guarantee that this condition will be maintained after the end of the Project. Therefore, coordinated actions on the ground are uncertain, as there is no "impartial" coordination body to facilitate the process and coordination between the central and municipal levels.
206. As mentioned, another risk inherent to the institutions in the territory is that **the lack of financial resources makes effective accompaniment of the communities impossible**, despite the fact that they currently have the technical capacities to do so. On its part, the municipalities that by competence have the task of "developing plans and programmes geared towards the preservation, restoration, reasonable use and improvement of natural resources, in accordance with the law"⁴⁵ have almost no

⁴⁴ According to the questions posed, 83% of the families state that they heard about climate change through the Project.

⁴⁵ Article 4, Municipal Code of El Salvador. Legislative Decree No. 274.

budgetary items for this sector, and the actions they implement in general relate to response situations in cases of emergency when natural disasters occur⁴⁶.

207. An additional risk relates to the fact that **the country is facing a situation of insecurity**. The Project targeted area has been at the margins of delinquency and gang problems. However, due to the generalised nature of the problem which occurs on a national scale, it is a factor that cannot be overlooked, and can even affect the presence of specialists in areas that were attended to by the Project, as has occurred with other initiatives in other territories of the country.

3.5.5 Catalytic effect of the project and its potential long-term impact

208. **The catalytic effect was more evident at the level of the different stakeholders (institutional and beneficiary) involved in the project.** The work of the project was systematised which identifies the key elements (both positive as well as restrictive) in the implementation, the lessons learned, good practices that can be replicated and a series of success stories that can also be shared. These lessons and experiences can serve as input to be replicated in similar contexts.
209. In terms of heads of households, it is worth pointing out all of the organisation and work performed through the Field Schools, in which demonstrative families were defined that acquired substantial knowledge on various topics and have become territorial reference points. In addition, the improved technical capacity offers the possibility that the institutions involved in the Project can replicate the knowledge in other territories, or in future represent a solid basis to give continuity in this same area. For example, a good amount of the experience obtained with the implementation of the Project will be taken up again in another project that will be financed by Korean cooperation. The Project is geared towards the eastern zone, to work with small communities. It has a lot of the components of this project - water harvesting, soil restoration, strengthening of local governments.
210. In addition, **the Evaluation believes that the actions implemented by the Project will make it possible to generate long-term impacts.** Some of the elements that back up this affirmation are as follows: a) The families that have participated in the household workshops have changed their perception of food systems that surround them and understand the importance of implementing sanitary practices and others that improve their quality of life; b) The poultry production systems as well as the incubation groups will enable an improvement in the food security of the family diet; c) The domestic vegetable gardens and fruit trees will, like poultry, provide an improvement in diet, and in some cases make it possible to generate income from the sale of surplus production; d) The roof rainwater harvesting systems, reservoirs and storage and conveyance systems developed within the framework of the Project will reduce the vulnerability of the communities and families to the lack of water in this part

⁴⁶ In accordance with the Mid-Term Review of the Project, the financing of the actions or programmes geared towards disaster risk prevention, reflected in the Participatory Strategic Planning of the Municipality for the 2016-2024 period, represented only 1.25% of the budget for 2017, i.e. the equivalent of an investment of \$0.39 per inhabitant.

of the dry corridor, among others. It is worth mentioning that the impacts could be greater, if the families had an adequate level of support in time and form.

Lessons Learned

Evaluation question 6: Which project lessons in terms of design, implementation and sustainability, can be useful for future and similar FAO interventions in El Salvador, and particularly interventions of the GEF and other donors in general?

211. **In the latter months of implementation, the project performed systematisation work that resulted in a document which was not only useful in that it offered an extensive view of the work but also because of its great potential in terms of how useful it would be for different users.** The systematisation consists of 9 sections⁴⁷ and includes, among others, a section of 40 pages of lessons learned about the following 15 topics:

- General
- Field specialists
- Coordination
- Implementation
- Communications
- FAO-CENTA agreement
- Administrative-Financial
- Participating bodies
- Participation of authorities
- External supervision
- Micro-watershed approach
- Strengthening of the capacity of response of the institutions in territories
- Integrated Natural Resources Management (INRM).
- Management of water resources (increasing availability in terms of quantity and quality of water)
- Management of the disaster risk to increase the capacity of adaptation to climate change

212. On its part, **the evaluation identified a series of lessons learned** that coincide in one way or another with that of the systematisation:

Lesson learned 1: Using the approach of a micro-watershed as a territorial unit to organise the work requires a lot of explanation towards the communities to instil the notion of interdependence between them and their immediate environment;

Lesson learned 2: Participatory processes such as those adopted by the project make it possible for the communities to get involved and participate in a more decisive and conscious manner;

Lesson learned 3: Having specialists with abilities and skills beyond the key topics, with a vocation for service and willing to put into practice what they teach, motivates participants and increases their commitment to the activities;

⁴⁷ Introduction; Critical analysis/Timeline; Selection criteria, Good Practices and Success stories; Lessons learned; Conclusions and recommendations; Bibliography; Annexes; Good practices and success stories.

Lesson learned 4: Generating institutional commitments from the outset that do not change over time, regardless of changes in administration, speeds up implementation;

Lesson learned 5: Establishing clearly what the follow-up commitment of the different institutions will be after the end of a project will increase their influence over time and improve the prospects of support for the sustainability of the achievements;

Lesson learned 6: Having a proactive executing unit, including the technical team, that promotes efficient planning, implementation and communication, makes it possible to coordinate actions and generate synergies in a context of fluid inter-institutional work;

Lesson learned 7: Dedicating resources to strengthen the administrative and financial capacity of the implementing unit facilitates efficient management, not only for the preparation of reports in a timely manner, but also to streamline procurement processes - avoiding delays that put the achievement of the outcomes at risk.

Conclusions

213. Taking the findings into consideration, and on the basis of the evidence presented, the evaluation concludes:

Conclusion 1 (general - rating satisfactory): The project succeeded in demonstrating that the use of the micro-watershed approach as an area of action for the implementation of management practices and sustainable use of land and water in areas with highly eroded natural resources vulnerable to desertification is correct, thus deepening the scope of activities. Promoting the participation of small-scale farmers helps to anchor the INRM principles, laying the foundation for reducing land degradation and increasing the resilience of livelihoods to threats and crises by incorporating Climate Change Adaptation (CCA) and Disaster Risk Reduction (DRR) into their day-to-day lives.

Conclusion 2 (relevance – highly satisfactory): The conceptualisation and design of the project was appropriate and well founded, as a resulting of a systematic and participatory process. As a result, the project strategy and actions were relevant and appropriate for meeting the needs of the stakeholders involved in matters of integrated natural resources management and adaptation to climate change, and were aligned to support the implementation of policies and programmes by the Government of El Salvador, municipalities, in the Country Programming Framework (CPF) and the FAO Strategic Objectives (particularly SO2 and SO5) and the GEF's objectives LD1 and LD3. The project fulfilled the needs prioritised by the communities by means of participatory processes.

Conclusion 3 (effectiveness - satisfactory): The Evaluation concludes that the Project fulfilled the four objectives defined in each of its components. The fulfilment of the component 2 and 3 targets was satisfactory while the fulfilment of the component 1 and 4 targets is fairly satisfactory.

Component 1 succeeded in establishing an inter-institutional coordination that was almost non-existent at the territorial level prior to the implementation of the Project. This was a determining factor in achieving the expected outcomes. Technical capacities were also improved at institutional level. A greater level of awareness was created among the families regarding the impact of CC and it can be affirmed that the families know the adequate responses to face them. Communities are also better organised and participate in activities related to disaster risk prevention, and incorporate integrated natural resource management into their production systems. However, a fundamental activity is the implementation of the Fragile Micro-watershed Management Plans, which were generated late and did not enable the guidance of the implementation of actions in the four micro-watersheds. In addition, the actions implemented in component 2 and 3 have made it possible to increase the quality and availability of water, and for families to have more secure access to a means of livelihood. With regard to component 4, the population is aware of the adverse impacts of climate change and is taking measures to address them. Despite this, families continue to be vulnerable, and mechanisms for municipal and departmental response to extreme weather events need to be consolidated.

Conclusion 4 (efficiency – moderately satisfactory): Most of the intervention methods, institutional structure, resources and procedures used, helped to achieve the project outcomes and objectives with the exception of two aspects: the almost one-year delay to sign the letter of agreement with CENTA and delays in acquiring certain supplies and services that had a negative impact on the performance of the project. Despite having designed a monitoring and evaluation strategy and plan using the baseline and indicators identified in the results matrix, the strategy could not be implemented as foreseen given that the information generated by the monitoring systems of the national institutions was not sufficiently aligned to be able to fulfil all of the project's specific information needs. Certain deficiencies were identified in the quality of outcomes indicators that made it difficult to measure the achievements of some of these, which should have been identified in the validation workshop.

Conclusion 5 (participation – highly satisfactory): The project actively promoted the participation and empowerment of all the stakeholders (men and women) in the decision-making process, observing and involving the groups in the different micro-watersheds. This was evident from the design stage and during the rest of the project cycle, and led to the beneficiaries appropriating the project work.

Conclusion 6 (gender – moderately unsatisfactory): The project was not explicit, from the outset of its design, about how it would translate the focus on the specific needs and circumstances of women and young people into actions. This was how the opportunity to comprehensively attend to the gender dimension was lost. Halfway through the execution of the Project, the topic of gender equality was promoted in a more comprehensive manner with the support of the Gender Unit of CENTA. Although it was not set forth in the PRODOC, actions were performed that promoted the participation of young people in non-agricultural productive businesses, and actions to protect natural resources.

Conclusion 7 (implementation – highly satisfactory): The quality of implementation by FAO was highly satisfactory due to the technical support provided at all levels. The partners and beneficiaries stated that the support provided was excellent and decisive in achieving objectives.

Conclusion 8 (execution – moderately satisfactory): Great efforts were made despite the constraints faced by the different institutions. Delays attributed to changes in CENTA management had a negative impact on implementation deadlines.

Conclusion 9 (design of the M&E plan - moderately satisfactory): The elements of the M&E strategy contemplated made sense, but deficiencies in the quality of the indicators (and the non-execution of the plan) were factors that limited their usefulness.

Conclusion 10 (implementation of the M&E plan - moderately unsatisfactory): Unfortunately, the plan was not implemented as foreseen because the information collected by the partner institutions did not correspond to the needs of the project. The project proceeded to monitor progress, mainly in terms of outputs and using projections as proxy indicators.

Conclusion 11 (sustainability – moderately unsatisfactory): The Evaluation verifies a series of outcomes obtained by the Project, which constitute an indispensable platform for the actions promoted to be sustainable over time. These outcomes include the technical capacities that have been strengthened at the institutional level, the generation of planning instruments with a micro-watershed approach, the greater level of knowledge on the part of the population about the effects of Climate Change and their proposals for adaptation, among others. However, it is unlikely that the actions promoted by the project are sustainable in the medium and long term without additional resources, technical assistance and initiatives to consolidate that achieved. In relation to this, the Project lacks an integral exit strategy that establishes the commitments of all parties and the sources of financing that will be made available.

Recommendations

214. The evaluation makes the following recommendation to be considered in the completion of future projects:

For FAO (HQ and FAO Representation in El Salvador)

Recommendation 1: Continue with the type of systematic and participatory processes used in the design of the project but improve them in the following aspects:

- Gender and Young People: prepare a strategy that takes a gender-sensitive approach and takes young people into account, with clear methodologies, actions and monitoring. The institution's policies in this area must be integrated with the mechanisms in place to ensure the achievement of the objectives set out therein;
- Management of expectations: to be effective at communication with all stakeholders to ensure that their interest is maintained, while making it clear, among other things, that a long time passes between the period of consultation, design and approval and the date for the potential start of implementation.
- Synergies: Perform a detailed analysis of the partner institutions to identify resources and capacities installed that can complement or reinforce the technical work during the design and implementation of the project (i.e. Gender Unit);
- Efficiency: Incorporate the appropriate resources into the budget (based on a diagnosis of capacities) to guarantee efficient administrative management (i.e. finance and acquisitions);
- Monitoring: include the necessary resources (i.e. specialist) and times to design and make effective a monitoring plan based on quality indicators that provides relevant and useful information, and complement it if required with the systems available in the country;
- Sustainability: request the preparation of a sustainability plan in a timely fashion which must be the responsibility of the highest body in charge of a project (i.e. the Steering Committee) to ensure its implementation.

215. The evaluation makes the following recommendation to encourage continuity of support in the benefited areas by the different participating institutions:

For the FAO Representation in El Salvador

Recommendation 2: Call upon the Project Steering Committee and the highest municipal authorities to prepare a monitoring and joint support plan (given the lack of a sustainability strategy) to consolidate the progress made. The Office must make the most of new initiatives in the area to incorporate activities that reinforce the outcomes achieved.

Appendix 1 - GEF rating system

GEF rating system⁴⁸

FAO – GEF rating system	Rating ⁴⁹	Brief comments
I. Overall rating of outcomes⁵⁰		
Overall quality of outcomes ⁵¹		
	S	The project generally managed to fulfil the targets set forth and made a substantial difference to the resilience of the beneficiary communities. Similarly, it has contributed towards improving the environmental surroundings.
Relevance		
	HS	The strategy and actions of the project were relevant and appropriate for attending to the needs of all of the stakeholders involved; a series of policies, strategies and guiding frameworks were identified that the project was in line with.
Effectiveness (level of achievement of outcome)		
	S	The evaluation considers that the Project has fulfilled the four objectives defined in each of its components. Component 1 was evaluated as moderately satisfactory. The evaluation rates components 2 and 3 as satisfactory. The evaluation rates the achievement of Outcome No. 4 as moderately satisfactory.
Efficiency		
	MS	Most of the intervention methods, institutional structure, resources and procedures used, helped to achieve the project outcomes and

⁴⁸ System modified according to the "Guidelines for GEF Agencies in Conduction Terminal Evaluations for Full-sized Project", published in April 2017.

⁴⁹ See the indications for the rating scales on the document website.

⁵⁰ If the evaluation team considers it necessary, the outcomes or components can be rated separately. The overall rating of outcomes is obligatory.

⁵¹ Following the indications and criteria for the determination of the rating shown in annex 2 of the GEF Guide of April 2017 for final evaluations (page 16).

		objectives with the exception of two aspects: the almost one-year delay to sign the letter of agreement with CENTA and delays in acquiring certain supplies and services that had a negative impact on the performance of the project.
II. Rating of the project implementation		
Quality of the implementation of the project and of the adaptive management (FAO)	HS	The quality of implementation by FAO was highly satisfactory due to the technical support provided at all levels.
III. Rating of the project execution		
Quality of execution (execution agencies)	MS	Great efforts were made despite the constraints faced by the different institutions. Delays attributed to changes in CENTA management had a negative impact on implementation deadlines.
Rating of the monitoring and evaluation system (M&E)		
Overall quality of M&E	MU	A significant opportunity was lost as the M&E system was not used as planned.
M&E design at the start of the project	MS	The M&E strategy was headed in the right direction, but deficiencies in the quality of the indicators (and the non-execution of the plan) were factors that limited their usefulness.
Implementation of the M&E plan	MU	Unfortunately, the plan was not implemented as planned.
IV. Sustainability		
Overall likelihood of risks to sustainability	MU	It is unlikely that the actions promoted by the project are sustainable in the medium and long term without additional resources, technical assistance and initiatives to consolidate that achieved.
Financial resources	U	There is no plan to allocate additional resources to fill the void created on withdrawing the

		project and to therefore be able to give continuity to the initiatives promoted.
Sociopolitical		The communities have committed to continuing, with the limitations they face on resources, the MIRN actions and CC adaptation actions. The coordinated actions on the ground are uncertain, as there is no "impartial" coordination body to facilitate the process and coordination between the central and municipal levels.
	MU	
Institutional		The project directly contributed to strengthening capacities at institutional level and promoting interinstitutional work. Given that there will be a changeover in employees over time, it is unlikely that the achievements will be maintained in the long term.
	MU	
Environmental		The evaluation found that the vast majority of families consulted, as well as the community leaders are committed to continuing to implement actions leading to stopping and reverting the current global trends in land degradation; and to increase and improve the provision of goods and services from agriculture and forestry in a sustainable manner.
	ML	

Other criteria to be added to the evaluation matrix and that will provide information to the GEF rating system:

- 1- Development of capacities
- 2- Gender considerations
- 3- Participation and inclusion of the stakeholders
- 4- Appropriation, replicability and catalytic effect
- 5- Progress towards impacts

- 6- Monitoring need
- 7- Materialisation of co-financing

Rating indications⁵²:

Scale for the rating of the outcomes, of the monitoring and evaluation system, and of the implementation and execution of the project:

- Highly Satisfactory (HS)
- Satisfactory (S)
- Moderately Satisfactory (MS)
- Moderately unsatisfactory (MU)
- Unsatisfactory (U)
- Highly Unsatisfactory (HU)
- Cannot be assessed (NA)

Scale for rating sustainability:

- Likely (L)
- Moderately Likely (ML)
- Moderately Unlikely (MU)
- Unlikely (U)
- Cannot be assessed (NA)

⁵² Following the criteria for the determination of the rating shown in annex 2 of the GEF Guide of April 2011 for final evaluations.