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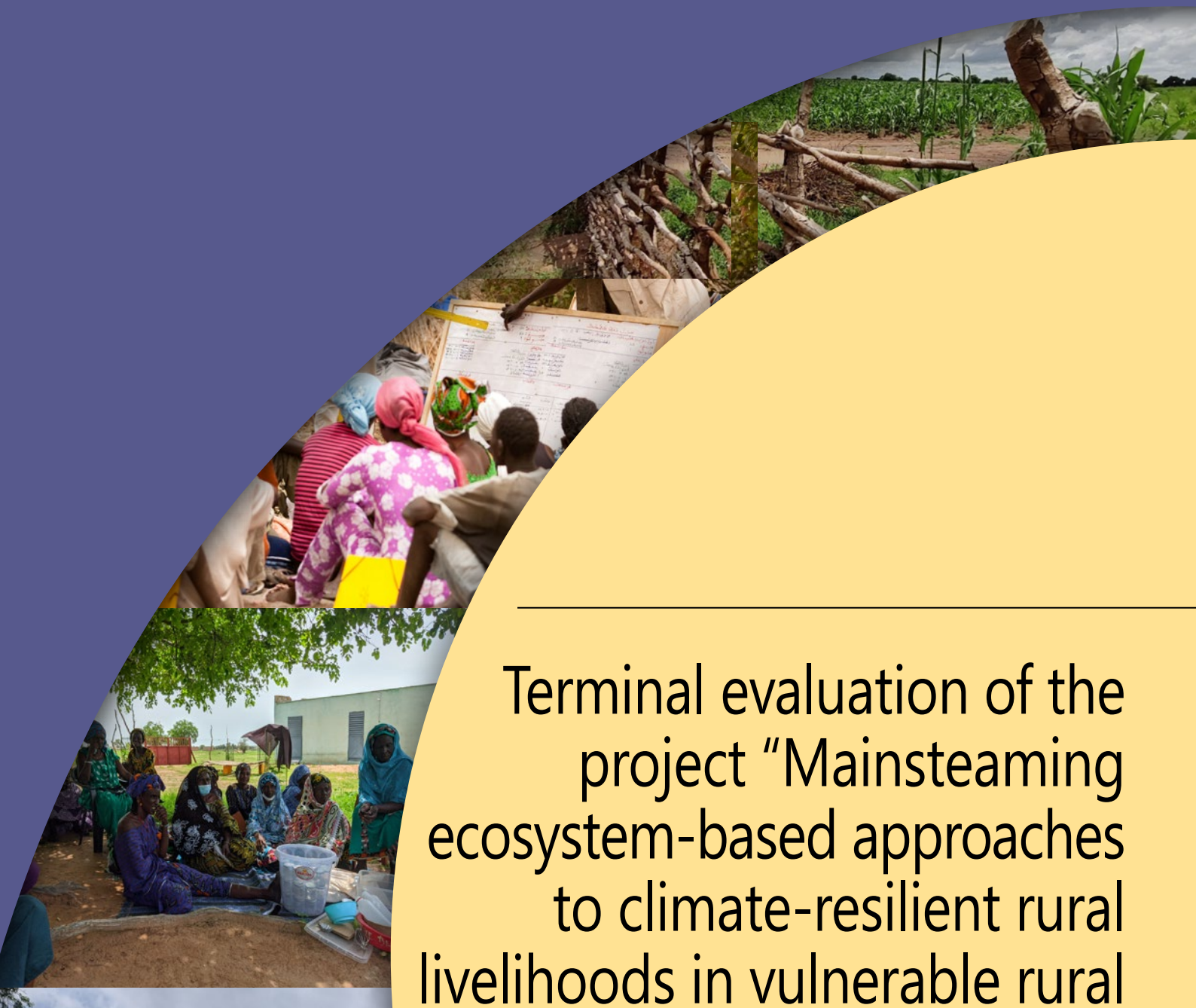

Terminal evaluation of the project "Mainsteaming ecosystem-based approaches to climate-resilient rural livelihoods in vulnerable rural areas through the farmer field school methodology"

Project Evaluation Series
06/2022

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Abstract

This report presents results of the final evaluation of Project "Mainstreaming ecosystem-based approaches to climate-resilient rural livelihoods in vulnerable rural areas through the farmer field school methodology". This project, funded by the Global Environment Facility (GEF), was implemented and executed by the Food and Agriculture Organization of the United Nations (FAO).

The initial duration of the project was five years (1 December 2015 to 31 December 2020, extended to 31 December 2021), with a total budget of USD 30.8 million, including an allocation from the GEF Least Developed Countries Fund (LDCF) of USD 6.2 million and co-financing of USD 24.6 million from other partners, namely the LouMaKaf Food Security Support Project (PASA), the Multinational Programme to build Resilience against Food and Nutrition Insecurity in the Sahel (P2RS), funded by the African Development Bank, the Agricultural Value Chain Support Project (PAFA) and the Support to Agricultural Development and Rural Entrepreneurship Programme (PADAER) funded by the International Fund for Agricultural Development (IFAD), and the Great Green Wall Initiative in Senegal.

The evaluation methods and tools for collecting data and information included an evaluation matrix, document review, field visits, and face-to-face interviews with partners and stakeholders.

The overall performance of the project is rated as Moderately Satisfactory. The project provides a relevant response to climate change adaptation needs in Senegal. The project is coherent in its design. It aligns with the Emerging Senegal Plan and the various sectoral policies and orientations related to sustainable agrosylvopastoral development in Senegal.

The main outcomes of the project include: building the capacity of groups of technicians, relay-facilitator producers, farmers and agropastoralists on good climate change adaptation practices, through the producers' field-school approach; creating a climate resilience fund that has helped to finance micro-projects in rural areas; disseminating climate information; training on climate change adapted practices in farmer field schools (FFS) and agropastoral field schools (APFS); carrying out inclusive activities through Dimitra clubs; improving credit through Village Savings and Loan Association (VSLA) funds; and creating income-generating activities through the climate resilience fund.

Certain measures have been presented in the recommendations such as: i) empower grassroots organizations, from the beginning of future projects, on the training at the level of FFS and APFS, the installation, the facilitation, the follow-up and the capitalisation, in order to avoid wastage and overloading agriculture and breeding technical agents with work; ii) effectively integrate pastoralism in APFS and emphasize the facilitation methods by placing agropastoralists at the centre of the learning process; and iii) follow up on the signing of the decree to reform the National Committee on Climate Change (COMNACC) and keep up with the speed-up process of the FFS and APFS institutionalisation and internalisation.

Contents

Abstract ... **iii**
Acknowledgements ... **vii**
Abbreviations and acronyms ... **viii**
Executive summary ... **ix**
1. Introduction ... **1**
1.1 Purpose of the evaluation ... 1
1.2 Scope and objectives of the evaluation ... 1
1.3 Target audience ... 3
1.4 Methodology ... 4
1.5 Limitations ... 6
1.6 Structure of the report ... 7
2. Context and project description ... **9**
2.1 General context ... 9
2.2 Climate change and vulnerability ... 10
2.3 Development policies, strategies and programmes ... 12
2.4 Project description ... 13
3. Main findings ... **19**
3.1 Relevance ... 19
3.2 Effectiveness ... 23
3.3 Efficiency ... 46
3.4 Sustainability ... 47
3.5 Factors affecting performance ... 50
3.6 Cross-cutting concerns ... 58
4. Conclusions and recommendations ... **61**
4.1 Conclusions ... 61
4.2 Recommendations ... 62
5. Lessons learned ... **65**
References ... **66**
Appendix 1. People interviewed ... **68**
Appendix 2. GEF evaluation rating criteria table ... **73**
Appendix 3. Results matrix ... **78**
Appendix 4. Rating system ... **83**
Appendix 5. GEF Co-financing table (USD) ... **85**
Appendix 6. Project evaluation matrix ... **86**

Boxes, figures and tables

Boxes

Box 1. Testimonies of Club Dimitra beneficiaries 32
Box 2. Revitalisation of the Louga Regional Committee on Climate Change 41

Figures

Figure 1. Gross domestic product growth trends 10
Figure 2. Project intervention areas 14
Figure 3. Theory of change reconstructed by the evaluation team at mid-term 18

Tables

Executive Summary Table 1. Distribution of clubs per implementing partner xiii
Executive Summary Table 2. Statement of expenditures as of 28 February 2022 (USD) xv
Executive Summary Table 3. GEF criteria rating table xx

Table 1. Evaluation questions 2
Table 2. Areas visited by the evaluation team 5
Table 3. Categories of stakeholders interviewed 6
Table 4. Average change in projected rainfall and temperature by zone and by scenario 12
Table 5. Vulnerability and impacts of climate change on different stakeholders 12
Table 6. Details of funding from the fund managed by the National Agro-Sylvo-Pastoral Development Fund for ten rural farmers' organizations 42
Table 7. Conclusions and recommendations of the mid-term evaluation and level of achievement 45
Table 8. Co-financing status (USD) 55

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Abbreviations and acronyms

AMAT	Adaptation monitoring and assessment tool
ANACIM	National Agency of Civil Aviation and Meteorology
ANCAR	National Agency for Agricultural and Rural Council
APFS	Agropastoral field school
AVSF	Agronomes et Vétérinaires Sans Frontières
CCA	Climate change adaptation
COMNACC	National Committee on Climate Change
COMRECC	Regional Committee on Climate Change
CSE	Ecological Monitoring Centre
DEEC	Directorate of the Environment and Classified Establishments
DRDR	Regional Directorate of Rural Development
FAO	Food and Agriculture Organization of the United Nations
FFS	Farmer field school
FNDASP	National Agrosylvopastoral Development Fund
GEF	Global Environment Facility
IGA	Income-generating activities
IPPM	Integrated Production and Pest Management
LDCF	Least Developed Countries Fund
OED	FAO Office of Evaluation
NAPA	National Adaptation Programme of Action on Climate Change
PADAER	Support to Agricultural Development and Rural Entrepreneurship Programme
PAFA	Agricultural Value Chain Support Project
PASA	Food Security Support Project
PCU	Project Coordination Unit
PRAPS	Regional Sahel Pastoralism Support Project
P2RS	Multinational Programme to Build Resilience to Food and Nutrition Insecurity in the Sahel
RNFS	National Network of Facilitators of Senegal
VSLA	Village Savings and Loan Association

Executive summary

1. This terminal evaluation concerns the project "Mainstreaming ecosystem-based approaches to climate-resilient rural livelihoods in vulnerable rural areas through the farmer field school methodology" which is financed by the Global Environment Facility (GEF). The initial duration of the project was five years (1 December 2015 to 31 December 2020, extended to 31 December 2021), with a total budget of USD 30.8 million, including an allocation from the GEF Least Developed Countries Fund of USD 6.2 million and co-financing of USD 24.6 million from other partners, namely the LouMaKaf Food Security Support Project (PASA), the Multinational Programme to build Resilience against Food and Nutrition Insecurity in the Sahel (P2RS), funded by the African Development Bank, the Agricultural Value Chain Support Project (PAFA) and the Support to Agricultural Development and Rural Entrepreneurship Programme (PADAER) funded by the International Fund for Agricultural Development (IFAD), and the Great Green Wall Initiative in Senegal. The overall objective of the project is to improve the food security and nutrition of agrosylvopastoral communities through the development of livelihoods resilient to climate change effects. The project operates in 17 municipalities located in seven administrative regions and three eco-geographic areas. This evaluation aims at assessing its objective achievement, its performance in terms of outcomes, as well as the sustainability of these outcomes in the long term. It covers all three eco-geographic areas of the project. The evaluation is conducted both for learning purposes and to capitalize on the achievements and problems identified in order to facilitate the drafting of future projects and development policies in Senegal. The final evaluation aims at informing stakeholders about the performance of the project, the conditions for sustainability of the results, and the lessons learned from the project implementation. It used a participatory and systemic approach to find answers to the evaluation questions.

Main findings

2. On the basis of the evaluation criteria and the ratings assigned, the evaluation rates the overall performance of the project as Moderately Satisfactory. A summary of ratings per criterion is presented here. Appendices 2 and 3 provide further information on the ratings and observations.

Relevance

3. Overall, the effectiveness of the project is satisfactory. The project provides a relevant response to climate change adaptation needs in Senegal. It is coherent in its design and aligns with the Emerging Senegal Plan (Republic of Senegal, 2014a and 2014b) and the various sectoral policies and orientations related to sustainable and agrosylvopastoral development in Senegal. The project is also aligned with Food and Agriculture Organization of the United Nations (FAO) and GEF strategic and operational policies and priorities with respect to capacity building and environmental safeguarding. The project design is consistent with GEF policies and requirements. Interviews with key persons at the ministry, GEF, and FAO levels confirm the project's contribution to operationalising development priorities defined by these institutions. Field visits provide examples to support these results. At the national level, capacity building of groups of technicians, facilitators, farmers and agropastoralists on good climate change adaptation practices through the field school approach contributes, for example, to the capacity building, support and advisory programme of the Ministry of Agriculture and Livestock, to the implementation of the Government of Senegal's National Agricultural Investment Programme for Food Security and Nutrition, and to the Government of Senegal's commitments to sustainable development, resilience and climate change adaptation. The establishment of a climate resilience fund that has allowed for the financing of micro-projects in rural areas also contributes to the implementation

of the Agrosylvopastoral Law (Republic of Senegal, 2004), the National Adaptation Programme of Action on Climate Change (Ministry of Environment and Sustainable Development, 2006), etc.

4. The project has provided multiple supports that perfectly meet the needs of the beneficiaries (men, women, youth). This support contributed to: disseminating agroclimatic information that guided farmers and agropastoralists in making decisions on agricultural and agropastoral activities; improving knowledge for better climate change resilience through training on good agricultural and agropastoral practices for climate change adaptation at the level of farmer field schools (FFS) and agropastoral field schools (APFS); creating inclusive and participatory community dynamics for local and endogenous development through Dimitra clubs; improving access to credit and rural savings through village savings and credit associations as well as income-generating activities through the climate resilience fund and the financing of diversification activities. On the other hand, some of the agricultural and agropastoral technologies and practices disseminated by the project are not relevant to the socioeconomic and cultural realities of the area. Indeed, the distribution of fodder crops, the treatment of straw with urea and the manufacture of multinutrient blocks for cattle feed are not adapted to the sylvopastoral zone due to: the difficult access to water; the high cost of irrigation; the constrained local availability of seeds, inputs and equipment for their production; and the challenges related to their marketing. The dissemination of organic fertilizer and the use of improved varieties in the groundnut basin are limited by the constrained local availability of raw materials and seeds and their high cost, making them inaccessible to vulnerable farmers. Finally, the absence of functional FFS and APFS has not made it possible to meet the capacity-building needs of the populations in these localities. In the sylvopastoral zone of the Matam Department, the absence of Dimitra clubs despite the demand of the population is a shortcoming in terms of meeting needs. Additional needs such as access to drinking water, expressed by the women of the Koutiary Farindella village in order to reduce their chore of fetching water, were not met, neither were the requests for fences to secure the FFS and APFS sites against animal rambling. The majority of requests for infrastructure and equipment to irrigate market gardening perimeters were not met.

5. The project design is appropriate, but its implementation has been limited to produce the expected outcomes. The wide intervention area (seven regions, three agroecological zones), the setting up of a light coordination unit (four agents based at headquarters in Dakar) and the absence of focal points or antennas at the regional or local level, have constrained the monitoring, supervision and coordination of field interventions, thus limiting the project's effectiveness and efficiency. In addition, the absence of full-time monitoring and evaluation and gender staff limited the capacity for systematic collection and analysis of indicators, trends and risks to enable timely project adjustments. The multiple implementing partners (40 in number) and the lack of coordination of their interventions at the local level also led to a lack of synergy and harmonisation of their field interventions. The strategy of centralising the purchase of inputs, equipment and materials needed to set up and run FFS and APFS has also delayed their implementation and affected their functioning. In addition, the project's decision to directly pay the allowances of all facilitators caused delays and demotivated some of them. On the other hand, the project is complementary to other ongoing and completed project interventions in the area across different themes.

Effectiveness

6. The project's achievement of outcomes is rated as Moderately Satisfactory. The achievement of outcome 1.1 "Strengthened and systematized knowledge and capacities to collect, analyse and disseminate agroclimatic data to improve local climate change adaptation (CCA) practices and identification in selected eco-geographical areas of CCA innovations/practices that can be scaled

up" is rated as Satisfactory. Through the partnership with the National Agency of Civil Aviation and Meteorology (ANACIM), the Ecological Monitoring Centre (CSE) and the National Agency for Agricultural and Rural Council (ANCAR), the project has improved the local climate change adaptation practices of farmers and agropastoralists, through the strengthening of knowledge, capacities for the collection and dissemination of agroclimatic information as well as the selection and dissemination of good CCA practices in the agroecological intervention areas. Eleven of the 17 national and local platforms called multidisciplinary working groups for the collection, analysis and dissemination of climate information have been boosted, strengthened and equipped. Indeed, they regularly provide agroclimatic information to more than 10 000 farmers and agropastoralists in the form of voice messages in national languages, SMS, radio messages and newsletters. According to farmers and agropastoralists, access to this information is very useful as it has enabled them to make good decisions on the conduct of agricultural and agropastoral activities (choice of crops and varieties, sowing dates, fertilizer and phytosanitary product application times, herding areas, purchase of cattle feed stocks, protection of children and young people against lightning and bad weather, etc.). Good CCA practices (eight in number) were identified and selected in a participatory and inclusive manner at the level of the agroecological zones and disseminated to farmers and agropastoralists. These practices include the use of fodder crops (neema), the use of cowpeas for fodder, water management with mulching and zaï, the use of short-cycle varieties, the use of stone barriers against land degradation, the promotion of organic manure, crop association, the production of multinutrient blocks and the treatment of straw with urea. However, the evaluation notes that although they were useful, these good practices were not new to most farmers and agropastoralists, as some of them benefited from training supported by other projects, government structures and non-governmental organizations. In addition, the choice of these good practices was not made on the basis of technical and financial feasibility studies or cost-benefit analyses in order to create conditions favourable to their use by farmers and agropastoralists. As highlighted in relation to relevance, the use of these good practices has come up against several socioeconomic, technical, financial and agroecological challenges.

7. The achievement of the outputs that contribute to Effect 1.1 is rated as Satisfactory. Indeed, the project has produced, with the support of ANACIM, CSE, technical services and local populations, documents based on scientific and local knowledge in the three agroecological zones: i) a study to update knowledge on climate in the sylvopastoral zone, the groundnut basin, and eastern Senegal (carried out by ANACIM in 2017); ii) the diagnosis of threats, challenges, and opportunities related to climate change and endogenous knowledge on adaptation in the sylvopastoral zone, the groundnut basin, and eastern Senegal (carried out by ANACIM, CSE, FAO, and GEF in October 2017); iii) the characterisation of pastoral units in Senegal: Synthesis elements in water bore areas of the sylvopastoral zone (carried out by the Ecological Monitoring Centre in 2017); and iv) a diagnosis of the operation of (national and local) multidisciplinary working groups and a feasibility study of setting up multidisciplinary working groups at the communal level in Senegal (carried out by ANACIM in December 2017). These studies have been reviewed and approved at the local, regional, and national levels by stakeholders. Stakeholders interviewed appreciate these studies, which they believe have provided greater insight into: i) the levels of climate change-related vulnerability in each zone; ii) the constraints, threats, consequences and impacts of climate change on plant, forest and animal resources in the zone; iii) the current CCA strategies based on the endogenous knowledge of the local populations as well as the optional CCA strategies and the priorities adopted, the resources available for their adoption and the factors that may prevent their adoption by the populations; and iv) the strengths, weaknesses, opportunities, threats and support needs of the pastoral units, the national multidisciplinary working group and the local multidisciplinary working groups. These studies have also made it possible to develop a compendium of priority good CCA practices, translated into three local

languages (Serer, Wolof and Pular), which cover the following themes: i) sustainable management of natural resources and restoration of biodiversity; ii) agricultural production systems and promotion of sustainable agriculture; iii) animal health and livestock production; iv) fisheries production techniques; v) promotion of local products; vi) promotion of domestic energy-saving technologies; vii) access to agroclimatic information; and viii) farmers' capacities. In the opinion of the CSE, ANACIM and FAO, one of the key results of this process is the approach aimed at synergy, harmonisation and pooling of resources, developed by the project team, which allowed ANACIM and the CSE to work together to produce and develop the knowledge products mentioned. However, the evaluation regrets that these knowledge products were poorly disseminated and communicated to the various stakeholders in the agrosylvopastoral sector. Several institutional stakeholders interviewed in the field do not have final versions (printed or electronic) of these documents, even though they actively participated in the development process. In addition, it is important to note that the CSE and ANACIM have been poorly involved in monitoring the use of these knowledge products, in order to capitalize on the achievements and to make adjustments. The project also strengthened the equipment of ANACIM's meteorological stations and the capacity of the regional and national multidisciplinary working groups, while providing financial support for their regular functioning. However, the evaluation noted that at the end of the agreement with ANACIM in 2017, the project was no longer able to guarantee the continued dissemination of agroclimatic information to farmers and agropastoralists. At the time of field visits, farmers and agropastoralists were no longer receiving agroclimatic information. This poses the problem of sustaining the operation of the multidisciplinary working groups, a problem to which the project and ANACIM were unable to find a solution.

8. The achievement of Effect 2.1. "Use/adoption of agroclimatic information, innovations and climate change adaptation practices by agrosylvopastoral producers" is rated as Moderately Unsatisfactory. The project has not conducted impact monitoring surveys and does not have databases that can be used to inform the level of achievement of the indicators: i) at least 25 percent of the farmer organizations participating in FFS are using climate information and disseminated climate change adaptation and resilience practices/technologies; and ii) twenty-five thousand people (40 percent of whom are women and youth) are direct beneficiaries. This makes it difficult to provide accurate adoption rates and the specific number of beneficiaries. Nevertheless, during field visits, farmers and agropastoralists said to have used the agroclimatic information when it was available. In addition, at this stage, the late implementation of FFS and APFS has directly impacted the large-scale adoption of these technologies. Indeed, some of these structures operated only once while others experienced many difficulties at the outset, whereas the FFS guidance document published by FAO states that it takes at least three years of accompaniment for the farmer or agropastoralist to adopt the practices disseminated. In addition, the project was late in putting in place some of the support measures necessary for the potential adoption of CCA practices and technologies (fences, drip irrigation system, chicken coop, etc.).

9. The achievement of almost all targeted outputs has been Moderately Satisfactory. The training programs of FFS and APFS have been revised to better integrate practices and technical sheets on good CCA practices have been developed. The project trained 523 FFS and APFS facilitators (out of the planned 500, a 104 percent completion rate) and 116 master trainers. The facilitators trained are agricultural technicians/advisors from the government's support services (agriculture, livestock, water and forestry), officers from development projects and non-governmental organization partners of the project, as well as facilitators from farmers' organizations. This training has contributed in improving the local expertise of field school facilitators in terms of CCA and climate resilience. During field interviews, facilitators and relay facilitators unanimously confirmed that they had acquired and improved their knowledge of the FFS and APFS approach.

10. In total, 560 field schools (410 FFS and 150 APFS) have been set up, out of the initially planned 1 250, i.e. a 45 percent completion rate. The mid-term evaluation recommended a 25 percent reduction in the initial target of 1 250 field schools, bringing the revised target to 937. Against this revised target, the achievement rate is 60 percent. A total of 12 576 farmers and agropastoralists (including 8 376 at the FFS level and 4 200 at the APFS level) have been trained, out of an initial target of 25 000 farmers and agropastoralists, i.e. an achievement rate of 50 percent. The number of women trained is 7 335, or 58 percent of the total. These data are taken from partner reports and the 2020 Project Implementation Report. However, the project does not have databases on achievements. In addition, the deployment of some facilitators outside the project intervention area and the recruitment of some of them by other structures has resulted in the failure to set up and/or facilitate FFS and APFS to train farmers. To fill this gap, the project opted to train as relay facilitators farmers and agropastoralists who are members of farmers' organizations in the areas where FFS and APFS have been set up. This option, although taken late (January 2020), has proven to be effective. Interviews in the field also revealed that some facilitators have not yet fully assimilated the CCA issue and are focusing on topics related to technical production itineraries and integrated pest management. As a result, the project was forced to call on other specialists to address special CCA topics.

11. All planned Dimitra clubs were established and village leaders, facilitators and community radio animators were trained to support their operation. Executive Summary Table 1 shows the distribution of clubs per implementing partner.

Executive Summary Table 1. Distribution of clubs per implementing partner

Partners	Number of Dimitra clubs planned	Number of Dimitra clubs achieved	Number of members
Agronomes et vétérinaires sans frontière	60	79	2 080
National Federation of Cotton Producers	300	277	6 925
Non-governmental organization Symbiose	124	131	3 275
TOTAL	**484**	**487**	**12 280**

Source: Elaborated by the Project Coordination Unit.

12. Dimitra clubs have mobilised all segments of the village population (youth, women, the elderly, adults) around socioeconomic and cultural development issues, strengthened exchanges and social cohesion, and implemented community socioeconomic projects in various fields (sanitation, socioeconomic infrastructure, solidarity credit, reforestation, vegetable growing, early marriage, excision, health, COVID-19, youth unemployment, etc.). In some localities, the strategic alliance between Dimitra clubs and FFS/APFS was voluntary on the part of stakeholders. For example, Dimitra clubs: i) helped raise awareness and select members during the preparatory phase of FFS/APFS; ii) supported the awareness-raising and mobilisation of FFS/APFS members during implementation; iii) served as platforms for sharing information and disseminating FFS/APFS processes and results; and iv) animated themes on their partner community radios. Several testimonies from communities illustrate the importance of Dimitra clubs. However, the project lacked specific action plans to facilitate the integration of Dimitra clubs, FFS, APFS and Village Savings and Loan Associations (VSLAs). Actually, Dimitra clubs were not systematically set up in the areas where FFS and APFS were established, thus limiting the promotion of a strategic combination of these instruments. Dimitra clubs also lacked monitoring and evaluation, self-assessment, and self-capitalisation tools to learn lessons and improve their implementation.

13. The project has supported the establishment of VSLA funds that have not only facilitated or reinforced access to credit for all at the village level to meet socioeconomic needs but also contributed to solidarity among members through meetings and discussions. VSLA funds were integrated late in the project's support system, without really reflecting on an integration strategy with Dimitra clubs. As a matter of fact, in some areas, the coexistence of Dimitra clubs and VSLA funds has, to a certain extent, deviated from the spirit of Dimitra clubs. Discussions about membership fees, management and distribution of funds have taken precedence over discussions about problems and the search for and implementation of endogenous solutions. However, this does not question the input of VSLA funds which have contributed to the individual and decentralized access of the rural populations to credit and rural savings to meet their needs.

14. The achievement of the objectives of Effect 2.2 "Increased household incomes and agricultural and pastoral productivity of field school participants, thanks to the use of CCA practices and agrometeorological information and to the improvement of the value chains of agricultural and livestock products" is rated as Moderately Unsatisfactory. As noted earlier, the lack of impact monitoring surveys and a database of project beneficiaries limits the objective assessment of this effect. However, given the difficulties in operating FFS and APFS, the constraints on the adoption of CCA practices, the cessation of agroclimatic information dissemination and the challenges in developing income-generating activities, it is possible to reach the definitive conclusion that the project's actions cannot directly justify an increase in productivity or income at the level of individual farmers' plots. With regard to the achievement of outputs that contribute to Effect 2.2, the project has supported farmers' organizations in developing action plans that integrate CCA and facilitated their linkage with financial institutions. However, this has not been sufficient to ensure their access to funding and the implementation of action plans. In addition, the seed multiplication and marketing programme did not produce the expected results, due to delays in the implementation of inputs. On the other hand, the support provided has made it possible to carry out a study on the characterisation of pastoral units, the development and implementation of management and land use plans.

15. The achievement of Effect 3.1 "Mainstreaming of the CCA dimension into national policies, strategies and programs, moving from a reactive response to a proactive approach" is rated as Moderately Satisfactory. The project has significantly contributed to the development of the local planning and budgeting guide, which integrates four cross-cutting dimensions (climate change, gender, nutrition and migration). On the other hand, despite the efforts made, CCA has not been systematically integrated into the policies and programs of the agrosylvopastoral sectors as well as into the budgets of development projects. Nevertheless, the project has strengthened the capacities of national and regional stakeholders, administrative and territorial authorities as well as national elected officials on CCA in order to facilitate its integration into national and local policies and budgets. The project has also revitalised the regional committees on climate change (COMRECC) and supported the process of reforming the National Committee on Climate Change (COMNACC), whose implementing decree is awaiting the signature at the Ministry of the Environment. A platform for dialogue and consultation on the integration of CCA in public policies is currently being operationalised.

16. The achievement of Effect 3.2 "Establishment of a. national climate change resilience fund within an existing financing mechanism to support climate change adaptation activities at the local level" is rated as Moderately Satisfactory. The project did establish a climate resilience fund, which was replenished with 403 594 100 African Financial Community Francs (hereinafter XOF) between July 2019 and August 2020 from Global Environment Facility funding. However, at the time of this evaluation, the project had not yet put in place a strategy for doubling the fund. Indeed, it was planned that by Year 3, the project would establish a fund mobilising twice the initial global GEF

contribution. This fund allowed the financing of ten sub-projects directly carried out by farmers' organizations in rural areas for an amount of XOF 367 589 225. In terms of achievements, the project has: set up a participatory, inclusive and secure governance and monitoring system for the fund at the national, regional and local levels; put in place management and procurement tools; and strengthened the capacity of stakeholders to use them. The implementation of financed sub-projects has effectively started and some are in their first and/or second cycle of operation in the areas of sheep and cattle fattening, poultry farming, vegetable-growing, purchase and resale of inputs and revolving funds, etc. However, the delay in signing the memorandum of understanding (MOU), the late establishment of the fund and the late start of the implementation of investments in the field are major discrepancies.

17. Finally, in the area of management and monitoring-evaluation, the evaluation rates the results obtained as Moderately Satisfactory. The project does not have an expert dedicated to monitoring and evaluation and has not set up a system to collect outcome indicators; it does not have databases on FFS, APFS, Dimitra clubs, VSLA funds and the climate resilience fund. The tracking tool – a tool developed by GEF to follow up outcome indicators and which has to be reported in at the mid-term and at the final evaluations – has only been reported in at the mid-term evaluation. Partner reports were prepared on time but were not sufficiently results-oriented. These reports were used by the project to develop the various progress reports. The mid-term evaluation has been carried out and its recommendations have been implemented. Efforts were made in the capitalisation of results, in participatory self-evaluation as well as in communication which was reactive rather than strategic.

Efficiency

18. The efficiency of the project is rated as Moderately Satisfactory. The wide and dispersed nature of intervention areas, combined with the high number of partnerships without any real coordination, synergy and harmonisation of actions, as well as the limited number of staff in the Project Coordination Unit (PCU), which is also based in Dakar, have reduced the efficiency of the project. In addition, the usual delays in signing MOUs and administrative bottlenecks related with procurement and disbursement procedures delayed the implementation of activities in the field. According to figures provided by FAO, the project has spent a total of USD 6 050 272 corresponding to a financial implementation rate of 98.2 percent as of 28 February 2022. Executive Summary Table 2 details this information.

Executive Summary Table 2. Statement of expenditures as of 28 February 2022 (USD)

Budget	6 228 996
Funds received	6 228 995
Actual expenditures (A)	5 882 092
Firm expenditure commitment (H)	135 148
Future expenditure commitment (S)	99 637
Total expenditures (A + H + S)	6 116 876

Source: Developed by the Project Coordination Unit.

Sustainability

19. The risks to the sustainability of the project results are considered moderate. Many factors promote the sustainability of the project's achievements: the technical strengthening of partners, farmers' organizations and beneficiaries; the establishment of the climate resilience fund; the partnership with institutions that are thus more aware of CCA issues, the diversity of approaches,

and the production and dissemination of knowledge on CCA. Yet, there are still some risks to sustainability. Financially, there are major risks to funding for the continued services offered by the multidisciplinary working groups, the continued monitoring of FFS and APFS facilitation and the extension of the climate resilience fund to other farmers' organizations, particularly given the lack of a strategy for doubling the fund. At the institutional and governance level, the diversity of stakeholders involved in the promotion of FFS and APFS without consultation and coordination entails a risk of fragmenting the governance of agricultural and rural counselling through FFS and APFS. Misunderstandings between the National Agrosylvopastoral Development Fund and ANCAR concerning the institutionalisation/internalisation of FFS and APFS, the low level of involvement of regional technical services in the supervision of FFS and APFS, and the delay in signing the decree implementing the COMNACC reform, are risk factors for the continuation of actions after the project's completion. However, the evaluation did not find evidence of environmental and social risks that may arise from the project's actions.

Factors affecting performance

20. Factors affecting project performance were rated as Moderately Satisfactory. Many factors affected project performance. The COVID-19 pandemic has severely hampered the implementation of the project over the past two years. The involvement and participation of all stakeholders during the project preparation and design fostered their commitment and facilitated project implementation. On the other hand, the wide and dispersed nature of the project intervention areas slowed down its implementation and effectiveness. Implementing partners assisted the project in carrying out field activities, but the high number of partnerships combined with a low level of coordination, synergy, and harmonisation reduced their effectiveness. The project's performance was affected by weaknesses in monitoring and evaluation and the lack of a monitoring and evaluation expert, which did not allow for the systematic collection of data to monitor outcome indicators and make adjustments. Due to the early termination of its operations, the technical steering committee did not fully carry out its mission of monitoring the achievement and outcome progress in order to make appropriate recommendations, facilitating coordination between partners, institutionalising CCA in public policies and providing a discussion forum on the mechanisms for the sustainability of outcomes and their expansion. The technical assistance provided by experts from the FAO Representation in Senegal, FAO (headquarters) and the FAO GEF Unit helped the Project Coordination Unit in project implementation. However, slow administrative and procurement procedures as well as travel restrictions related to COVID-19 mitigated its effectiveness. In addition, the co-financing partners' interventions were not well coordinated or even concerted throughout the project.

Gender and social inclusion

21. Gender mainstreaming and social inclusion are rated as Satisfactory. The gender dimension is taken into account in project preparation and design in terms of analysis, activities and indicators disaggregated by sex but not by age. As concerns implementation, women have participated in all consultations; they are the majority of beneficiaries of FFS, APFS, VSLAs, Dimitra clubs and the climate resilience fund projects, including income-generating activities. They represent between 55 and 60 percent of the trained beneficiaries. However, the project did not take into account the needs of people with disabilities.

Conclusions

Conclusion 1. The project is relevant to national, FAO and GEF strategic priorities and meets the needs of the beneficiaries. The mobilisation and commitment of partners in project implementation reflect their shared interest in climate change adaptation, gender equity and ecosystem resilience.

22. The ministries in charge of agriculture, livestock, the environment and social action have been active in the implementation of the project. Their positive assessments of the project show that it is in line with national policies and strategies. There have been no changes in the initial problematic, which was confirmed by the diagnostic studies and the multistakeholder consultations carried out at the start of the project.

23. The project is also relevant to the needs of the beneficiaries. The latter have strengthened their knowledge and know-how to improve the resilience of their production systems and develop community dynamics of self-promotion contributing to the management of the community needs through Dimitra clubs. In addition, women and youth beneficiaries were able to strengthen their decision-making and economic power through positive discrimination in targeting, support for income-generating activities, and Dimitra clubs.

Conclusion 2. The project has helped build the capacities of institutional stakeholders and farmers' organizations in terms of climate change adaptation, resilience and gender equity.

24. The project has effectively contributed to the integration of CCA into policies, projects and programs. Thanks to the project, the legal framework of the National Committee on Climate Change has been revised and the regional climate change committees of Matam and Louga have also been boosted; the regional climate change committees of Kaolack, Tambacounda, Fatick, Kaffrine, and Diourbel are still pending. Parliamentarians and local elected officials have been informed, made aware and trained on climate change adaptation issues. The institutionalisation of Farmer Field Schools is well on track, while the climate resilience fund is effective. Institutionalising the integration of CCA in local planning instruments is also well underway with the ongoing validation of the local planning guide integrating the four cross-cutting dimensions (CCA, migration, nutrition and gender).

25. Several key institutions have been strengthened: the Directorate of the Environment and Classified Establishments (DEEC), ANACIM, the CSE and ANCAR. The human capital of decentralized technical services (agriculture, livestock, water and forestry) has been trained in the areas of Farmer Field Schools and the integration of climate change adaptation and gender equity dimensions. The Integrated Production and Pest Management (IPPM) facilitators' network updated its FFS approach by integrating CCA and APFS. National expertise in Dimitra club has been strengthened through trained implementing partners. The project has facilitated the initiation of institutional dynamics through the revitalisation of regional committees on climate change and certain multidisciplinary working groups, the establishment of a network for the dissemination of climate information to farmers and communities, and the climate resilience fund mechanism (regional evaluation committee at the regional level and local support committees at the local level). The integration of farmers' umbrella organizations as implementing partners has strengthened their capacities in the following areas: facilitation of FFS, APFS and Dimitra clubs, provision of advisory services to their members, mainstreaming of climate change adaptation and gender equity, networking, etc.

Conclusion 3. The project has taken gender and environmental issues into account in its design and is actually reaching a majority of women. The environmental dimension was also central to the project.

26. The environmental dimension and the vulnerability of women and youth were clearly identified in the contextual analysis. Gender has been taken into account from the very beginning of the project with the development of a gender indicator (40 percent of women and youth are directly affected by the project). Gender has also been taken into account in most of the project's activities during implementation. Within the field schools, specific actions that can increase women's participation have been identified, such as mulching of market garden crops. Women make up the majority in most APFS, FFS, Dimitra clubs and micro-projects. Fifty-one percent of the Dimitra clubs are composed exclusively of women. They represent between 55 and 60 percent of the trained beneficiaries.

27. The environmental dimension was central to the project. Environmental vulnerability was an important criterion in targeting the project intervention areas. All of the actions promoted by the project contribute to increasing the resilience of ecosystems to climate change (CCA practices via FFS and APFS, Dimitra clubs, multidisciplinary working groups). At the policy and institutional level, policy documents, the revitalisation of the National Committee and regional committees on climate change, and the development of a local planning guide integrating climate change adaptation, are contributing to a better mainstreaming of CCA within national policies.

Conclusion 4. Project implementation had several shortcomings that have affected its effectiveness.

28. Indeed, many factors negatively affected project implementation. Due to FAO's administrative bottlenecks, most FFS and APFS were established late and over a wide intervention area. Emphasis was laid on the quantity of APFS to be set up to the detriment of the quality of the pedagogy and the relevance of the topics addressed, which were often not very innovative and sometimes poorly adapted to the production systems of the beneficiaries (little work on groundnuts in the groundnut basin; few activities on pastoralism in the Ferlo, etc.). In the absence of a monitoring and evaluation system and given the significant decrease in number of facilitators, the project has had neither the time nor the means to systematically correct these shortcomings. Finally, the context of the fight against the COVID-19 pandemic from the beginning of 2020 also reduced its flexibility and limited its capacity for action in the field.

Recommendations

29. Based on the findings and conclusions, the following recommendations are made.

Recommendation 1. To FAO, high importance, high priority. Conduct a formal closure of activities by formally informing all partners and requesting them to do the same with the stakeholders on the field, especially the beneficiaries.

Recommendation 2. To FAO, medium importance, medium priority. In future projects, empower from the outset grassroots farmers' organizations to train participants at the FFS and APFS level, set up, facilitate, monitor and capitalize on the project, in order to avoid the risks of decreasing the number of agriculture and livestock technical agents and overloading them.

Recommendation 3. To FAO, high importance, medium priority. In future interventions, promote better coordination of partnerships and harmonisation of FFS-Dimitra clubs-VSLA-climate resilience fund approaches, as well as a revision of the related guides.

Recommendation 4. To FAO, high importance, high priority. Delegate procurement procedures to implementing partners to facilitate the acquisition of inputs, materials, or equipment needed for the establishment and operation of FFS/APFS.

Recommendation 5. To FAO and GEF, medium importance, medium priority. Strengthen coordination, synergies of action and harmonised interventions among implementing partners by establishing a

mechanism for coordinating and monitoring the physical and financial achievements of funding partners as well as reporting to capitalize on lessons learned.

Recommendation 6. To FAO, high importance, high priority. For future projects, ensure that an exit plan is developed within six months prior to the end of the project and negotiated with all stakeholders.

For this project, negotiate an indicative exit plan with stakeholders by the end of 2021.

Recommendation 7. To FAO, high importance, medium priority. For future projects, strengthen the capitalisation and sharing of knowledge generated during implementation.

Recommendation 8. To FAO, high importance, high priority. In future interventions, recruit a person dedicated to monitoring and evaluation and set up a functional monitoring and evaluation system.

Recommendation 9. To FAO, high importance, medium priority. When designing future projects, ensure the availability of human and financial resources to guarantee project implementation according to the geographical coverage.

Recommendation 10. To FAO, high importance, medium priority. Strengthen the sharing and communication of knowledge products with all stakeholders.

Recommendation 11. To FAO and ANACIM, high importance, high priority. Work with ANACIM and other development partners on a mechanism to sustain the funding and operation of multidisciplinary working groups.

Recommendation 12. To FAO, high importance, high priority. Proceed with the effective integration of pastoralism in APFS and focus on facilitation methods with agropastoralists at the centre of learning.

Recommendation 13. To FAO, high importance, high priority. Take into account the needs of persons with disabilities in the APFS, FFS, Dimitra clubs and VSLA fund approach.

Recommendation 14. To FAO, ANCAR, the National Agrosylvopastoral Development Fund and DECC, high importance, high priority. Follow-up on the finalisation of the signature of the decree to reform the COMNACC and the acceleration of the institutionalisation and internalisation process of FFS and APFS.

Recommendation 15. To FAO and the National Agrosylvopastoral Development Fund, high importance, high priority. Quickly put in place a mechanism to double the climate resilience fund.

Executive Summary Table 3. GEF criteria rating table

GEF criteria/sub-criteria	Note	Comments
A. STRATEGIC RELEVANCE		
A1. Overall strategic relevance	**S**	
A1.1. Alignment with GEF priorities and FAO strategic priorities	**HS**	The project is consistent with FAO priorities and contributes to GEF strategic priorities.
A1.2. Relevance to national, regional and global priorities as well as beneficiaries' needs	**HS**	The project is in line with the Emerging Senegal Plan and the various sectoral orientations and policies concerned.
A1.3. Relevance to the needs of the beneficiaries.	**S**	The project has taken into account the context of the intervention area. It provides technical and practical CCA knowledge but also allows women and youth beneficiaries to have opportunities to strengthen their decision-making and economic power. However, some additional needs that emerged during implementation were partially or not addressed.
A1.4. Complementarity with existing interventions	**HS**	One of the criteria for choosing the intervention area is the presence of projects (with or without co-financing) that allow for synergies. Synergies have been developed with existing projects.
A1.5. Appropriate project design to produce the expected outcomes	**MS**	Satisfactory design but: i) very large intervention area; ii) small size of the project team; iii) lack of a monitoring and evaluation expert, lack of regional antennas or local focal points, and multiple partners limited implementation and the achievement of outcomes.
A1.6. Level of coherence of synergies between stakeholders (institutional, then implementing stakeholders)	**MS**	Many efforts have been made but the plurality of partnerships has taken precedence over the multistakeholder partnership, resulting in a near absence of coordination between partners in the field, a lack of synergies and harmonisation of interventions. The coordination of interventions between the project and co-financing partners initiated at the start of the project did not continue (PASA, PAFA, PADAER, P2RS, Senegalese Agency for Reforestation and the Great Green Wall, and the Regional Sahel Pastoralism Support Project [PRAPS]).
B. EFFECTIVENESS		
B1. Overall evaluation of project outcomes	**MS**	
B1.1 Output achievement	**MS**	
Output 1.1.1. ANACIM and CSE have analysed threats, opportunities and constraints due to climate change and proposed an integrated CCA strategy for each specific project area	**S**	All knowledge products have been developed but their level of dissemination remains limited to facilitators and relay facilitators.
Output 1.1.2. Information management systems and tools used by the national multidisciplinary working group are strengthened to integrate climate change aspects; local multidisciplinary working groups are created and participate in the agroclimatic advisory system	**MS**	Multidisciplinary working groups are revitalised and have provided climate information, however, following the cessation of their funding, the majority of them are no longer operational.
Output 2.1.1. Specific training programs for field schools focused on CCA, ecosystem resilience and integration between agricultural, sylvopastoral production systems and nutrition are developed and disseminated	**MS**	Training programs have been revised to integrate CCA. However, the content of APFS does not sufficiently take into account issues related to pastoralism.
Output 2.1.2. Facilitators are trained in CCA practices and strategies, gender and nutrition issues	**S**	Targets have been met overall. The action has strengthened the human capital of partner institutions and organizations. However, the training of new master trainers has not been achieved.
Output 2.1.3. Farmer Field Schools (FFS) are established or strengthened to integrate CCA practices into production systems and training of farmers	**MS**	The planned number of FFS has not been achieved. Some have been operational for only one year, others were established late and are not secured.
Output 2.1.4. Dimitra Listeners' clubs (Dimitra clubs) are established and empowered to allow networking of field schools	**MS**	Achievement rate have exceeded the target. Dimitra clubs play an important role in consulting and addressing the socioeconomic problems of communities. They promote the participation of youth

GEF criteria/sub-criteria	Note	Comments
		and women. However, Dimitra clubs have not been systematically set up in the FFS/APFS zones in the Ferlo of Matam area. They do not include people with disabilities.
Output 2.1.5. Good practices and lessons learned for better adaptation to climate risks are capitalized on and disseminated at the local level	**MS**	Good practices have been selected and capitalized on through ANCAR but dissemination is relatively limited.
Output 2.2.1. Agrosylvopastoralist organizations are strengthened through the adoption of new CCA technologies and innovations as well as improved production and value chains	**MS**	Many farmers' organizations strengthened, income-generating activities (IGAs) supported, but the benefits of accompanying measures to facilitate the adoption of good practices are sometimes limited (late availability of equipment, fodder crops, cuttings, inputs for the manufacture of multinutrient blocks, non-availability of seeds at the local level, lack of water control equipment).
Output 2.2.2. At least one farmer per field school multiplies and markets climate change-adapted seeds with high nutritional value	**MU**	Few certified seeds have been produced and these are not marketed. The late availability of seeds and inputs and the fact that some farmers' organizations are not accredited for seed multiplication have hindered the achievement of this output
Output 2.2.3. New adapted varieties of cereals, fruits and vegetables and fodder species are introduced in the intervention areas to improve the food and nutrition security of the population	**MS**	Varieties of cereals, fruits and vegetables and fodder species have been effectively promoted in the area. However, the availability of and access to seeds at the local level remains a challenge.
Output 2.2.4. Land-use plans and management plans for grazing areas and livestock rangelands are strengthened with the participation of farmers' and pastoralists' associations and local authorities	**S**	Many efforts have been made to characterise and support pastoral units. Partner projects and non-governmental organizations have used the results to develop land-use and action plans. The sustainability of funding for the implementation of management plans and land use plans at the level of pastoral units is not guaranteed.
Output 3.1.1. Awareness modules for decision makers have been developed and institutional capacities have been strengthened to integrate CCA into policies, programs and projects, based on the field school approach	**S**	Significant efforts have been made (training, mechanisms, platforms) at different levels to ensure the integration of CCA into sectoral and municipal development policies.
Output 3.1.2. A high-level cross-sectoral group is set up in order to define and adopt the CCA and resilience action plan to be integrated into policies, programs and projects	**S**	The project supported the COMNACC reform process in an inclusive and participatory manner. The results of the work were approved during a national validation workshop and the draft reform decree was prepared and submitted to the Ministry in charge of the environment. However, administrative bottlenecks are delaying the signing of the decree.
Output 3.2.1. A national climate resilience fund is created through an open window at one of the existing funds	**MS**	The fund is officially created, its architecture is set up and financial resources are mobilised. About ten projects have been financed. However, administrative bottlenecks, from the signing of the MOU and the replenishment of the fund to the selection of sub-projects, have delayed the financing of sub-projects and the implementation of investments in the field. In addition, the mechanism for doubling the fund is not effective.
Output 4.1 A systematic field data collection system to monitor project outcome indicators is operational	**MU**	The project has not implemented a system for collecting data on outcome indicators.
Output 4.2 Mid-term and final evaluations have been conducted	**HS**	The mid-term and the final evaluations have been carried out.
Output 4.3 A communication strategy has been developed	**S**	Several knowledge products were developed without reference to a communication strategy.
B1.2 Progress towards project effects and objectives	**MS**	
Effect 1.1 Strengthened and systematised knowledge and capacities to collect, analyse and disseminate agroclimatic data to improve local climate change adaptation practices and identification in selected eco-geographical areas of CCA innovations/practices that can be scaled up	**S**	Knowledge and capacity have been improved, strengthened and have guided the design of training materials. However, dissemination to other development stakeholders is limited.

GEF criteria/sub-criteria	Note	Comments
Effect 2.1. Use/adoption of agroclimatic information, innovations and climate change adaptation practices by agrosylvopastoral producers	**MU**	The level of use and adoption of climate information practices is not monitored (lack of surveys to track outcome indicators). Field visits confirmed the use of climate information. However, in some cases, climate information is no longer transmitted (sylvopastoral zone, Ranérou). The adoption of CCA innovations and good practices also faces certain technical and financial challenges.
Effect 2.2. Increased household incomes and agricultural and pastoral productivity of field school participants, thanks to the use of CCA practices and agrometeorological information and to the improvement of the value chains of agricultural and livestock products	**MU**	Lack of household income surveys. Conditions for improving beneficiaries' incomes are not met (adoption of good CCA practices is not effective due to: i) the late establishment and low level of operation of FFS and APFS; ii) technical and financial challenges related to the use of innovations and technologies disseminated; iii) the use of agroclimatic information; iv) micro-projects financed by the climate resilience fund that are only in their first year of operation; v) the development of IGAs, which is hampered by the absence and/or late establishment of accompanying measures (equipment, infrastructure, inputs).
Effect 3.1. Mainstreaming of the CCA dimension into national policies, strategies and programs, moving from a reactive response to a proactive approach	**MS**	The project has contributed to the development of a guide for planning and budgeting local development financing that integrates climate change, migration, gender and nutrition. The guide has been tested in two municipalities, the lessons learned have been capitalized on and are being expanded to other municipalities. The Ministry in charge of local development has approved and adopted the guide. However, the project has not succeeded in integrating CCA into the National Agricultural Investment Programme for Food Security and Nutrition, which is currently being developed. Furthermore, the evaluation did not find evidence of CCA integration into development projects.
Effect 3.2. Establishment of a national climate change resilience fund within an existing financing mechanism to support climate change adaptation activities at the local level	**MS**	The fund is set up and the financing of 10 micro-projects of farmers' organizations is carried out in a participatory manner. However, there has been a delay in the establishment of the fund and the achievement of investments due to administrative bottlenecks. Moreover, the strategy of doubling the fund is not effective.
Effect 4. Implementation of the project based on results management and applying lessons learned from the project in future actions	**MS**	The project has put in place a mechanism to coordinate and monitor implementation. However, its effectiveness is limited by the absence of a monitoring and evaluation specialist and a monitoring and evaluation system for collecting and analysing data to draw lessons and guide decision-making.
Overall rating of progress towards objectives/effects	**MS**	
B1.3. Probability of impact	**UA**	No survey or impact monitoring data.
C. EFFICIENCY		
C1. Efficiency[1]	**MS**	The efficiency of the project is limited by: i) the slow procurement procedures; ii) the signing of MOUs; iii) the size of the intervention area; iv) the lack of coordination, synergy and harmonisation between partners' interventions.
D. SUSTAINABILITY OF PROJECT OUTCOMES		
D1. Overall probability of sustainability risks	**ML**	There are significant risks to the sustainability of project outcomes. The suspension of FFS and APFS following the end of the project and the lack of plans to access improved seeds are the most significant risks.
D1.1. Financial risks	**MU**	Partner institutions in the field have a portion of the budget to carry out certain activities. However, most of the budget is not allocated (ANCAR). Some activities had already stopped with the end of funding; this is the case for some multidisciplinary working groups and the facilitation of FFS and APFS. The absence of a mechanism for doubling the climate resilience fund does not guarantee the extension of funding to other preselected micro-projects. The late start-up of financed micro-projects and the constraints in the

GEF criteria/sub-criteria	Note	Comments
		implementation threaten their profitability and their ability to be autonomous.
D1.2. Socio-political risks	**L**	Measures planned to contain social risks have been applied (inclusion, dialogue, focus on the needs of communities, etc.). However, project implementation may lead to other social risks, notably the coexistence of Dimitra clubs and VSLA funds in the financial management of contributions.
D1.3. Institutional and governance risks	**ML**	The delay in signing the Order on the COMNACC reform, the lack of clarification of the roles and responsibilities of ANCAR and the National Agrosylvopastoral Development Fund (FNDASP) in the process of institutionalising and/or internalising FFS/APFS, the low level of ownership by the Regional Directorate of Rural Development (DRDRs) and the National Network of Facilitators of Senegal (RNFS)/IPPM in the monitoring of FFS/APFS are institutional and governance risks.
D1.4. Environmental and social risks	**L**	The project does not present any environmental risks for the future.
E. FACTORS AFFECTING PERFORMANCE		
E1. Project design and preparation[2]	**S**	The project design and preparation are based on a participatory and inclusive approach, based on evidence and focused on clearly identified problems. However, the lack of a monitoring and evaluation expert is a shortcoming in the project design, as are the size of the intervention area compared to the size of the project team and the lack of a decentralized mechanism for coordinating interventions.
E2. Quality of implementation	**MS**	
E2.1 Quality of FAO implementation (Budget Officer, Lead Technical Officer, Project Task Force, etc.)	**MS**	The FAO team at HQ (Lead Technical Officer, FAO-GEF Unit) provided technical and financial support and assistance to the project. However, delays in the signing of MOUs and procurement procedures, combined with the COVID-19 situation, which led to the suspension of supervision missions, have limited the quality of implementation.
E2.2 Project supervision (Technical Steering Committee, Project working group, etc.)	**MS**	Project supervision is limited by: the early termination of the steering committee, which only functioned for the first few years; and the absence of an oversight body for interventions at the regional level.
E3. Quality of project execution	**MS**	
E3.1 Project management and execution arrangements (PCU, Financial Management)	**MS**	The PCU has demonstrated a proactive and committed approach to partnership development, stakeholder involvement and participation, and implementation planning and monitoring. However, its limited staffing, the lack of a monitoring and evaluation expert, the wide area of intervention, and the plurality of partners mitigated its effectiveness.
E4. Financial management and co-financing	**HS**	The co-financing implementation rate is 113%. The level of co-financing implementation as of 31 June 2021 is 113% or USD 27.8 million (31 June 2021) compared to USD 24.6 million initially planned for the project, an increase of 13%. All financial contributions from partners through the PASA/LouMaKaf, Senegalese Agency for Reforestation and the Great Green Wall, PAFA-E, P2RS, and PADAER projects, have been implemented at 100%.
E5. Project partnerships and stakeholder engagement	**MS**	The targeting of partners is consistent. The engagement of implementing partners is also satisfactory. However, the project has not been able to trigger a real multistakeholder dynamic based on harmonisation, synergies of action and coordination of interventions. The project has not developed partnerships with DRDRs, even though they are responsible for supervising and coordinating all rural development interventions at the regional level.

GEF criteria/sub-criteria	Note	Comments
E6. Communication, knowledge management and knowledge products	**MS**	Many ad hoc communication activities have been carried out (workshops, meetings, guidance documents, video films and documents, posters, document sharing) but they are not part of a clear communication and capitalisation strategy.
E7. Overall quality of monitoring and evaluation	**MS**	During the design phase, aspects related to monitoring and evaluation were taken into account and budgeted for. However, during implementation, there were many shortcomings: lack of surveys to monitor outcome indicators, lack of databases, lack of harmonisation and lack of quality in the partners' reporting.
E7.1 Monitoring and evaluation design	**MS**	The results chain is well designed, roles and responsibilities are well defined, and resources are provided for the key monitoring and evaluation activities. However, there is no monitoring-evaluation manager.
E7.2 Implementation of the monitoring and evaluation plan (including financial and human resources)	**MU**	Lack of staff dedicated to monitoring and evaluation: the monitoring of effects as well as the learning component was lacking during implementation. In the project implementation reports, the values of the outcome indicators reported were not based on rigorous evidence.
E8. Overall evaluation of factors affecting performance	**MS**	Factors affecting project performance were rated as Moderately Satisfactory. Many factors affected project performance. The COVID-19 pandemic has severely hampered the implementation of the project over the past two years. The involvement and participation of all stakeholders during the project preparation and design fostered their commitment and facilitated project implementation. On the other hand, the wide and dispersed nature of the project intervention areas slowed down its implementation and effectiveness
F. CROSS-CUTTING CONCERNS		
F1. Gender and other equity dimensions	**S**	Gender was taken into account in project design in the statement of outcome indicators. During the implementation, some activities such as the Dimitra clubs increased the participation and economic power of youth and women. However, people with disabilities are not specifically targeted in the Dimitra clubs.
F2. Environmental and Social Safeguards	**HS**	The overall objective of the project addresses this concern. It is reflected in the choice of the intervention area and the set of activities proposed. The evaluation team had access to the initial classification and that of the mid-term review, which was considered Moderately Likely. This same classification was maintained. No actions that increase environmental and social risk were found; on the contrary, the achievements were related to environmental sustainability (sustainable land management, reforestation, use of organic products).
OVERALL RATING OF THE PROJECT	**MS**	

Notes: [1] Includes cost effectiveness and timeliness.
[2]Factors to be considered here are those affecting the ability of the project to start as planned, such as sufficient capacity of implementing partners at the kick-off of the project

Acronyms used: CCA (climate change adaptation); IGA (income-generating activity); ANACIM (National Agency of Civil Aviation and Meteorology (ANACIM); VSLA (Village Savings and Loan Association); ANCAR (National Agency for Agricultural and Rural Council); FFS (Farmer Field School); APFS (Agropastoral Field School); COMNACC (National Committee on Climate Change); COVID-19 (Coronavirus Disease 2019); CSE (Ecological Monitoring Centre); DRDR (Regional Directorate of Rural Development); FAO (Food and Agriculture Organization of the United Nations); GEF (Global Environment Facility); FNDASP (National Agrosylvopastoral Development Fund); IPPM (Integrated Production and Pest Management); PAFA (Agricultural Value Chain Support Project); PASA (Food Security Support Project); PRAPS (Regional Sahel Pastoralism Support Project) P2RS (Multinational Programme to build Resilience against Food and Nutrition Insecurity in the Sahel); PADAER (Support to Agricultural Development and Rural Entrepreneurship Programme); RNFS (National Network of Facilitators of Senegal); PCU (Project Coordination Unit).

1. Introduction

1. This report concerns the terminal evaluation of the project GCP/SEN/065/LDF "Mainstreaming ecosystem-based approaches to climate-resilient rural livelihoods in vulnerable rural areas through the farmer field school methodology". The project is funded by the Global Environment Facility (GEF) and implemented by the Food and Agriculture Organization of the United Nations (FAO), in partnership with the Senegalese Ministry of Agriculture and Rural Equipment. With an initially planned duration of five years (1 December 2015 to 31 December 2020), the project has been extended to December 2021. The final evaluation report of the project presents the outcomes obtained, lessons learned, conclusions and recommendations. The report is based on the information collected from literature reviews, interviews and field visits. The report includes an executive summary, a description of the context, project and methodology, presentation of outcomes, conclusions, recommendations and lessons learned, and several appendices.

1.1 Purpose of the evaluation

2. The final evaluation of the project is a GEF requirement. This evaluation aims at determining the performance of the project, the conditions for sustainability of results, and the lessons to be considered for the design and implementation of future interventions. It is addressed primarily to the Government of Senegal, FAO, GEF, funding partners, steering committee members, the Project Coordination Unit (PCU), implementing partners, beneficiary populations, administrative authorities, and local communities.

1.2 Scope and objectives of the evaluation

3. This final evaluation covers the design and implementation phases of the project (1 December 2015 to 30 September 2021). It covers all three agroecological zones (the sylvopastoral zone, the groundnut basin and the eastern Senegal zone), the seven regions[1] and the seventeen municipalities[2] where the project was implemented. The evaluation examined the project's four components and four areas of intervention: farmer field schools (FFS) and agropastoral field schools (APFS), Dimitra clubs, the climate resilience fund, Village Savings and Loan Association (VSLA) funds, and income-generating activities (IGA). All project stakeholders were involved in the evaluation process: FAO, PCU, GEF, the Government of Senegal, implementing partners and beneficiary populations.

4. The evaluation is based on evaluation questions and uses the evaluation criteria of relevance, effectiveness, efficiency and sustainability. It also examines other elements such as factors affecting performance, gender, co-financing, progress towards impact, environmental and social safeguards, knowledge management, and additionality.

5. The objectives of the evaluation are to examine the achievement of the project objectives, its performance and the changes it has brought about, and also to identify problems encountered during its design and implementation in order to guide future actions in this regard. Consequently, it analysed: i) the level of relevance and quality of the project in its design, implementation and output; ii) the achievements and contributions of the project in relation to its objectives, effectiveness and efficiency; iii) the level of long-term impact and sustainability of project outcomes; iv) the quality of its monitoring and evaluation system; v) the level of

[1] Fatick, Kaolack, Louga, Matam, Tambacounda, Kaffrine and Diourbel.

[2] Ogo, Oudalaye, Vélingara Ferlo, Kayemore, Ida Mouride, Kathiote, Kousanar, Tessékré, Thiel, Labgar, Barkedji, Gassane, Ngoye, Sagna, Djilor, Koulor and Missira.

engagement of the project stakeholders; vi) environmental and social safeguards; vii) gender aspects; viii) progress toward project impacts; and ix) knowledge management aspects.

6. The main evaluation questions are organised as presented in Table 1.

Table 1. Evaluation questions

Relevance
Have the project outcomes been consistent with: i) the GEF focal areas and operational programme strategies; and ii) national priorities and the FAO Country Programming Framework?
What is the level of coherence of synergies between stakeholders (institutional, then implementing stakeholders)?
Has the relevance of the project changed since its design as a result of new national policies, plans or programs that affect the relevance of the original project objectives and goals?
Effectiveness
To what extent have FAO interventions contributed to improving the food security and nutrition of agrosylvopastoral communities through the development of livelihoods resilient to climate change effects, especially by: • facilitating the use of agroclimatic information and the adoption of climate change adaptation practices by agrosylvopastoral producers; and • improving the capacity of the agrosylvopastoral sector to cope with climate change by integrating climate change adaptation strategies into agrosylvopastoral development policies, programs and projects?
To what extent does the actual outcome of the project match with the expected effects?
What is the level of achievement of outcomes at the level of each output?
What is the project's contribution to global environmental benefits (based on monitoring tools)?
Effect 1.1: To what extent has the knowledge and capacity to collect, analyse and disseminate agroclimatic data to improve local climate change adaptation practices been strengthened and systematised? To what extent have innovations/climate change adaptation practices that can be scaled up been identified in the selected eco-geographic areas?
Effect 2.1: To what extent have agroclimatic information, innovations and climate change adaptation practices been used/adopted by agrosylvopastoral producers?
Effect 2.2: To what extent have household incomes and agricultural and pastoral productivity of the field school participants increased thanks to the use of climate change adaptation (CCA) practices and agrometeorological information and to the improvement of the value chains of agricultural and livestock products?
Effect 3.1: To what extent has the CCA dimension been integrated into national policies, strategies and programs, moving from a reactive response to a proactive approach?
Efficiency
To what extent has FAO provided project identification, concept preparation, evaluation, preparation, approval and start-up, supervision? To what extent have risks been identified and managed?
How effectively did the implementing agency carry out its role and responsibilities related to project management and administration? (Distinguish between FAO's role as the implementer of project activities and as the executing entity)
Was the project implemented efficiently in terms of resource mobilisation and use?
To what extent has the project sought to innovate with new approaches to facilitate implementation?
What is the level of communication among project stakeholders at the institutional and implementing levels?
What are the difficulties encountered in project implementation with regard to the relationship between institutional and implementing stakeholders?
How efficient is FAO in carrying out project procedures?

Sustainability
How sustainable are the project outcomes, and how likely are they to be sustained beyond the end of the project? What are the main risks and elements that may affect the sustainability of the project benefits? To what extent have the benefits of the project been scaled up at the institutional level? What measures are in place in the context of COVID-19 (Coronavirus Disease 2019) to limit the effects of the pandemic on project activities? What are the potential mechanisms for replication at the country level in the sub-region (due to the resilience mandate of the regional office)?
Elements affecting performance
Monitoring and evaluation: Does the monitoring and evaluation plan implement an operational and sufficient approach to its proper implementation? Did the monitoring and evaluation system work within the framework of the monitoring and evaluation plan? Was the information collected systematically using appropriate methods? Was the information from monitoring and evaluation used appropriately in decision-making processes? Stakeholder engagement: were other stakeholders such as civil society, Indigenous People or the private sector involved in the design or implementation of the project? What was the impact of this on the project outcomes? Was the project design appropriate to achieve the expected outcomes?
Environmental and social safeguards
To what extent have environmental and social concerns been taken into account in the design and implementation of the project? Is the project's original risk classification of environmental and social safeguards still relevant? Did the project help beneficiaries adapt to climate change?
Gender
To what extent have gender issues been taken into account in the design and implementation of the project? Has the project been implemented in a way that ensures gender-equitable participation and benefits?
Co-financing
To what extent has the expected co-financing materialised and has this affected project outcomes?
Progress toward impact
To what extent can the demonstrated progress be attributed to the project? Has there been evidence of: • reduced environmental stress in terms of adaptation; • change in environmental status; and • change in policy, legal or regulatory framework? Are there obstacles or other risks that could impede future progress in terms of impact?
Knowledge management
How does the project evaluate, document and share its results, lessons learned and experiences?

Source: Elaborated by the evaluation team.

1.3 Target audience

7. The results of this final evaluation are primarily intended for GEF, FAO, and the Government of Senegal, implementing partners, and beneficiary populations, to inform them about the project's performance, lessons learned from project implementation, conditions for the sustainability of outcomes, and recommendations for consideration. Overall, the results of the evaluation will allow: i) GEF, to assess the performance of the project, consolidate and guide future support;

ii) FAO, to assess its performance, draw lessons and apply the recommendations required to strengthen its assistance to the Government of Senegal in the area of strengthening climate change adaptation and the resilience of agricultural households to food and nutrition insecurity; and iii) the Government of Senegal, to assess the performance of the project and capitalize on the lessons learned from the implementation of farmer field schools, agropastoral field schools, the climate resilience fund and Dimitra clubs in order to ensure their consolidation and development on a larger scale. The results of the evaluation will allow implementing partners, farmers' organizations and beneficiary populations to assess their contribution to the project and to identify the actions they need to take to ensure the sustainability of the achievements.

1.4 Methodology

8. The final evaluation of the project complies with United Nations Evaluation Group (UNEG, 2016) evaluation norms and standards, GEF guidelines, the terms of reference (TORs), and the 2019 Coronavirus Barrier Measures (COVID-19) issued by the Government of Senegal. The final evaluation adopted a systemic, participatory, and inclusive approach during the mission preparation, field survey, site visit, data analysis, and report writing phases.

1.4.1 Preparation of the mission

9. The mission preparation phase took place during the first week of August 2021. Two scoping meetings were held between the consultant team,[3] the PCU, the staff of the FAO Representation in Senegal and the evaluation officer of the FAO Office of Evaluation (OED). These meetings helped to clarify the objectives of the mission, collect documentation, refine the methodology and plan the survey phase. During this phase, the following documents were reviewed: the Project Document (ProDoc); policy, strategy and programme documents of Senegal, FAO and GEF; project implementation reports (PIRs), MOUs and activity reports of the PCU and partners; the mid-term evaluation report, etc. The preliminary review led to the preparation of the inception report which: i)describes the context of the project; ii) outlines the methodological approach to be followed; iii) presents the evaluation matrix specifying for each criterion the questions and sub-questions, the indicators, the data collection and analysis methods; and iv) describes the data collection tools as well as the schedule of the mission and the deliverables. The initial report was presented to the PCU in a virtual meeting during which the schedule, sites to be visited and stakeholders to be interviewed were discussed and validated. The choice of the sites to be visited in each zone took into account the following criteria: accessibility of the site during the rainy season; distance between the sites to be visited; presence of FFS, APFS, Dimitra clubs, climate resilience funds, VSLAs, etc. Afterwards, the FAO Representation in Senegal officially announced the mission to its partners through an introduction letter accompanied by the mission and field visit schedule as well as the TORs of the evaluation. This was followed by data collection in the field.

1.4.2 Data collection and site visits

10. The data collection phase was conducted in two stages. The first stage took place from 16 August to 2 September 2021 and was divided as follows: i) 16 to 21 August: virtual interviews with institutional partners based in Dakar; and ii) 23 August to 2 September: interviews with beneficiaries, project partners based in the field, and site visits. The second stage, including

[3] The evaluation team was composed of: Mr Saboury Ndiaye, Team Leader covering climate change adaptation aspects within extension services and farmer/agropastoral field schools; Mr Alexandre Diouf, covering aspects of institutional strengthening and policy advice; Ms Kéwé Kane, in charge of planning, monitoring and evaluation of the project, as well as gender and social inclusion within extension services, farmer/agropastoral field schools, and Dimitra clubs; Mr Mar Ngom, covering institutional strengthening, capacity building of farmers' organizations, and extension services from a learning perspective.

interviews with the PCU and FAO personnel in Senegal and Rome, took place from 14 to 16 September 2021, after the consultants returned from the field and presented their preliminary findings. Table 3 presents the categories of stakeholders interviewed.

11. In Dakar, virtual interviews with project partners were organised, following the increase in COVID-19 cases. Resource persons and focal points from the project's implementing partner structures were selected by the evaluation team from a database of stakeholders provided by the PCU. Interview sessions were organised on the basis of an interview protocol lasting between 40 minutes and one hour. These interviews involved one to several stakeholders from the same structure (see list of interviewees in Appendix 1).

12. The evaluation team visited the three agroecological zones, six of the seven regions, and ten of the seventeen municipalities where the project was implemented. During these visits, individual and group interviews were conducted with the beneficiaries of FFS, APFS, climate resilience fund, Dimitra clubs, VSLA funds and income-generating activities. Interviews were also conducted with the project's implementing partners, facilitators, relay facilitators and other stakeholders involved in the implementation of the project. Table 2 illustrates the areas visited by the evaluation team.

Table 2. Areas visited by the evaluation team

No.	Region	Department	Municipality
1	Matam	Matam	Ogo
2		Ranerou	Oudalaye
3			Velingara
4	Louga	Linguere	Barkedji
5			Thiel
6	Kaffrine	Koungueul	Ida Mouride
7		Kaffrine	Kathiotte
8	Kaolack	Nioro du Rip	Kayemor
9	Fatick	Foundiougne	Djilor
10	Tambacounda	Tambacounda	Koussanar
11			Missirah

Source: Elaborated by the evaluation team.

13. After the field phase, the preliminary results of the evaluation were presented to the PCU and to FAO and OED personnel to seek their opinion and to clarify and elaborate on certain points. Subsequently, interviews continued with the PCU and FAO personnel in Rome. The stakeholders interviewed are presented in Table 3.

Table 3. Categories of stakeholders interviewed

Stakeholders	Institutions and stakeholders involved
Project Coordination Unit	Coordinator, agronomist, livestock expert, Dimitra club focal point, administrative and financial assistant
Implementing partners	**FAO (headquarters)**: Lead Technical Officer; Programme Officer at the Global Environment Facility coordination unit; Dimitra club expert; pastoralism expert **FAO Senegal**: Resident representative, Programme Officer of the Representation **Government of Senegal:** Ministry of Agriculture and Rural Equipment
Co-financing partners	Food Security Support Project (PASA) in regions of Louga, Matam and Kaffrine (PASA LouMaKaf), Multinational Programme to build Resilience against Food and Nutrition Insecurity in the Sahel (P2RS), Regional Sahel Pastoralism Support Project (PRAPS)
Implementing partners	**Government technical services:** National Agency for Agricultural and Rural Council (ANCAR), Directorate of the Environment and Classified Establishments (DEEC), National Agency of Civil Aviation and Meteorology (ANACIM), Ecological Monitoring Centre (CSE), Regional Directorate of Rural Development (DRDR), Regional Water and Forestry Service, Departmental Rural Development Service, Departmental Livestock Service, National Agro-Sylvo-Pastoral Development Fund (FNDASP), Regional Development Agency, Regional Local Development Service, Departmental Local Development Support Service **Non-governmental organizations (NGOs) and networks:** National Network of Facilitators of Senegal (RNFS Master Trainers), Agronomes et Vétérinaires Sans Frontières (AVSF), NGO Symbiose, National Federation of Cotton Producers **Grassroots farmers' organizations:** Entente des groupements associés à la base, Economic interest group (EIG) Dagne Diame, EIG Pinal Bamtare Djolof Thiel, EIG Mbamtare Labgar, GPF Labgar Thianor, EIG Diobé Soro Khoum, EIG Kawral Younouféré, EIG Béléré Tékinguel, Gallé Aynaabé Missirah Association, EIG Takku Liguey Ida Gadiaga, EIG Penthium Dekray, EIG Soukhali Mbaymi, EIG Diam Welly Keur Yoro
Beneficiaries	Farmers, agropastoralists, men, women, young beneficiaries of farmer field schools, agropastoral field schools, Dimitra clubs, climate resilience funds, VSLAs (Village Savings and Loan Associations)

Source: Elaborated by the evaluation team.

1.4.3 Data analysis and report writing

14. The data analysis and report writing phase took place from 20 September to 7 October 2021. The evaluation team triangulated the data from interviews, field visits and literature review in order to answer the different evaluation questions set out in the TORs. For the evaluation criteria for which a rating is required, the GEF rating scales (Appendix 4) were used: highly satisfactory (HS), satisfactory (S), moderately satisfactory (MS), moderately unsatisfactory (MU), unsatisfactory (U) and highly unsatisfactory (HU).

1.5 Limitations

15. In Dakar, the evaluation was disrupted by the outbreak of COVID-19, which prevented face-to-face meetings with the PCU, FAO, and some institutional partners. To get around this difficulty, online interviews through the Zoom platform were conducted to discuss with key resource persons. Despite the presence of COVID-19 cases in the project intervention regions, field visits were carried out in strict compliance with recommended barrier measures. However, some limitations did not allow the evaluation team to cover all of the project intervention areas and meet with all of the stakeholders, including the inaccessibility of certain sites during bad weather, the dispersion and remoteness of sites, and the unavailability of farmers and agropastoralists occupied with field work. In order to overcome these limitations, the evaluation team visited the three agroecological zones, targeting the municipalities where all the project intervention areas

are concentrated (FFS, APFS, Dimitra clubs, climate resilience funds and VSLA funds). In each zone visited, different categories of beneficiaries were met (men, women, youth, farmers, herders and agropastoralists).

1.6 Structure of the report

16. This introduction is followed by section 2 which presents the project context and description. Section 3 presents the main findings for each evaluation question. This is followed by section 4, which presents the conclusions and recommendations. Section 5 presents the lessons learned.

17. Additional information is provided in the appendices: list of surveyed people; GEF evaluation criteria rating table; results matrix; rating system; GEF co-financing table; project evaluation matrix.

2. Context and project description

2.1 General context

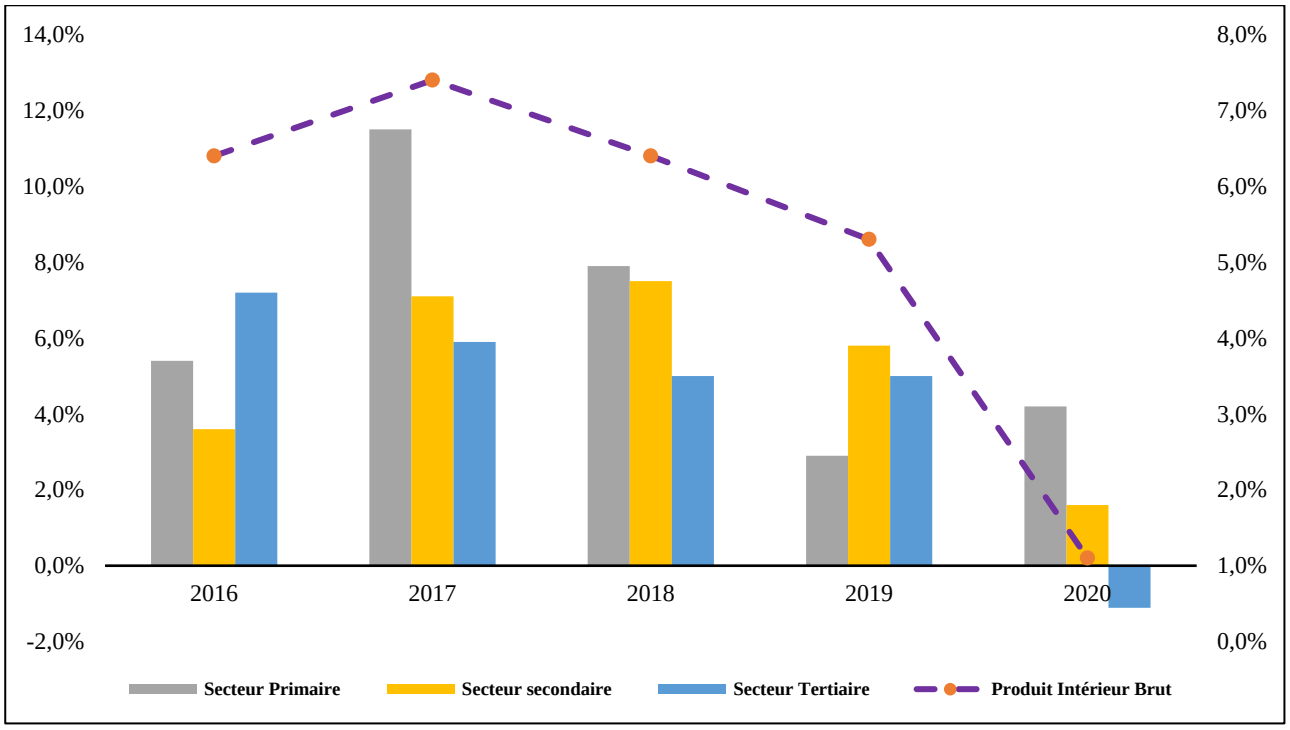
18. The Republic of Senegal is located in the extreme west of the African continent between 12.5 and 16.5 degrees north latitude and covers an area of 196 712 km^2. The country is bordered to the north by Mauritania, to the east by Mali, to the south by Guinea-Bissau and Guinea and to the west by the Atlantic Ocean. Between the regions of Kaolack and Ziguinchor, the Gambia forms a semi-enclave on the lower course of the river that bears the same name.

19. The total population of the country was 16.3 million in 2019. It is 52.3 percent rural, 47.7 percent urban, and has been characterised by a strong urban migration for several decades (77 percent of the population lived in rural areas in 1960). Women make up 51.2 percent of Senegal's population. The agricultural sector employs 30 percent of the working population and generates about 14.7 percent of the gross domestic product. It is characterised by subsistence farming that is dependent on climate change, with less than 2 percent of cultivated and irrigated land.

20. Economically, the country has performed well in terms of economic growth in recent years (Figure 1). Senegal's economy recorded an average annual gross domestic product growth rate of 5.3 percent between 2016 and 2019 (Ministry of Economy, Planning and Cooperation, Directorate of Economic Forecasting and Studies, 2019). However, in 2020, economic growth was significantly affected by the outbreak of the COVID-19 pandemic in Senegal, with a real gross domestic product growth rate projected at 1.1 percent in 2020 compared to an initial forecast of 6.8 percent. In 2019, economic activity slowed down with a growth rate of 5.3 percent compared to 6.4 in 2018. This slight decline is due to the underperformance of the primary and secondary sectors, in contrast to the tertiary sector, which remained stable. According to the Directorate of Economic Forecasting and Studies, the contribution of the primary sector to gross domestic product declined by 5 percentage points to 2.9 percent in 2019 from 7.9 percent in 2018. This slowdown in the primary sector is attributable to the agriculture sub-sector, which contributed 0.2 percent to GDP, compared to 9.9 percent in 2018. Indeed, agricultural activity has not performed well due to late and deficient rainfall over a large portion of the country. For example, cereal production fell by 4.2 percent, from 2.86 million tonnes in 2018 to 2.78 million tonnes in 2019 (Agence Nationale de la Statistique et de la Démographie, 2022) In contrast to the agricultural subsector, the livestock and fisheries subsectors grew in terms of contribution to GDP between 2018 and 2019, rising from 2.7 to 7.3 percent and from 11.1 to 12 percent respectively.

21. Despite the progress achieved in recent years, Senegal is still classified as a least developed country. Socioeconomic indicators have improved slightly. The latest national poverty survey of 2021 shows that poverty has declined by five percentage points, with the monetary poverty rate falling from 42.8 percent in 2011 to 37.8 percent in 2018–2019 (Agence Nationale de la Statistique et de la Démographie, 2021b). Despite this decline in the poverty rate, the number of poor people in Senegal from 5 832 008 in 2011 to 6 032 379 in 2018 (Agence Nationale de la Statistique et de la Démographie, 2021a). The project intervention regions (Tambacounda, Kaffrine, Kaolack, Fatick, Diourbel, Matam and Louga) have poverty rates above the national average. Senegal still remains in the category of "low human development" countries with a Human Development Index of 0.514 in 2018, ranking the country 166th out of 189 countries and territories (United Nations Development Programme, 2019). Gender inequality still persists in Senegal, with an index of 0.523, making it 125th out of 162 countries in 2018. Malnutrition-related stunting affects 17 percent of children under five and remains a major concern.

Figure 1. Gross domestic product growth trends



Source: Ministère de l'économie du plan et de la coopération, Direction de la prévision et des études. 2019. *Situation économique et financière 2019 et perspectives 2020.* Dakar. https://www.economie.gouv.sn/fr/dossiers-publications/publications/situation-economique-et-financiere-en-2019-et-perspectives-en (website visited on 22 March 2022)

2.2 Climate change and vulnerability

22. Senegal is a flat country with an altitude of less than 50 m on near three-fourths of the territory. Given its geographical position and its seafront of more than 700 km, Senegal has different climatic conditions between the coastal zone and the inland regions. Rainfall is highly variable in time and space, with a great disparity between the humid south and the dry north. This rainfall variability determines the four climatic zones, which are generally grouped into two major climatic regions on either side of the 500 mm isohyet that extends approximately between Thies and Bakel. In the Sahelian climatic region, the rainy season extends from June to September with annual rainfall ranging from 200 mm in the north to 500 mm in the south, while in the Sudanian climatic region, the rainy season extends from May to October with annual rainfall ranging from 600 mm in the north to 1 200 mm in the south. The river system is made up of three large basins: the Senegal River, the Gambia River and the Casamance River. Arable lands are estimated at 9.4 million hectares of which about 5 million are cultivated.

23. The rainfall variability is high and is expressed both spatially, with significant differences over a few hundred metres, and temporally, over the years and seasons. On this basis, the country is subdivided into six eco-geographic zones: i) the Niayes zone, which covers 8 883 km^2 along the northern coast (1 percent of arable land). This area is used for vegetable and fruit growing, especially on hydromorphic soils, although most of it is used for food crops such as millet and peanuts. Intensive cattle breeding is practised for milk production, as well as poultry farming for the production of chicken and eggs. Artisanal coastal fishery is also practised on the Grande Côte; ii) the Senegal River Valley, which is an alluvial plain and sandy uplands covering 22 472 km^2 (8 percent of the arable land). Agriculture is organised around traditional flood-recession crops (sorghum, maize, and rice) and irrigated crops (rice, market gardening, and industrial crops such as sugarcane and tomatoes) in the floodplain; iii) the Ferlo sylvopastoral zone, which is one of the largest areas in the country with an area of 55 561 km^2, but with only 4 percent of the land suitable

for agriculture. It belongs to the Sahelian climate type and is located between isohyets 300–600 mm. Extensive transhumant livestock production is the main production system (22–30 percent of the national livestock population); iv) the groundnut basin zone, which covers an area of 46 367 km^2 (57 percent of the arable land), receives between 500 and 700 mm of rainfall between June and October, and produces two thirds of the national production of millet and groundnuts (the main crops grown in the country); v) the eastern Senegal zone, which occupies an area of 51 958 km^2 (10 percent of arable land). In its northern part, livestock production predominates, while mining is the main activity in its southern part. It also provides almost all the wood fuel consumed in the country's major urban centres. This area is one of the most watered areas in Senegal in its southern part, with cumulative annual rainfall that can exceed 1 000 mm; and vi) the Casamance, which covers an area of 49 361 km^2 (20 percent of the arable land) and is, along with the eastern Senegal area, the most watered area in Senegal. It has the most important forest reserves in the country, but these are constantly decreasing due to the expansion of agricultural areas and the exploitation of wood. The area is very suitable for rice and horticulture, thanks to its lowlands and dense hydrographic network.

24. Global warming and its effects are no longer to be demonstrated in Senegal. Several studies show an increase in average temperatures and a downward trend in rainfall. According to a study conducted by the National Agency of Civil Aviation and Meteorology (ANACIM) in 2017, a global increase in minimum temperatures has been observed between 1961 and 2010. The signs of this include an increase of 0.58 °C in Dakar, 1.88 °C in Ziguinchor and 1.06 °C in Tambacounda. In the report on Senegal's Intended Nationally Determined Contribution, forecasts show that average temperatures will increase from +1.17°C to +1.41°C by 2035 (Ministère de l'Environnement et du Développement Durable, 2015). In terms of rainfall, the 2019–2023 Country Programming Framework (FAO, 2019a) indicates that in 2035 the northern zone of the country will experience a decrease in rainfall of 16 mm on average compared to the 1976–2005 reference period, while the other zones will experience an even greater decrease that would average 84 mm (see Table 4). Given that the economy strongly depends on the agrosylvopastoral and aquaculture sectors, this accentuates the vulnerability and impacts of climate change on the Senegalese population. Forecasts show that climate change will lead to a 50 percent drop in millet yields by 2035 (Diop, 2014), a cumulative loss of fish catches estimated at XOF 68 billion between 2020 and 2050 (Ecological Monitoring Centre, 2015) and a halving of the annual water availability per capita, from 4 500 m^3/person/year in 1990 to 2 000 m^3/person/year in 2025 (UNCA, 2000). The information in Table 5 shows the degree of vulnerability and impact of climate change on agriculture, livestock, fisheries, coastal areas, biodiversity and water resources.

Table 4. Average change in projected rainfall and temperature by zone and by scenario

Parameters	Scenarios	North	Southeast	Southwest	Centre-west
Temperatures (°C)	RCP4.5	+1.18	+1.17	+1.17	+1.17
	RCP8.5	+1.41	+1.37	+1.37	+1.37
Rainfall (mm)	RCP4.5	-16	-89	-89	-89
	RCP8.5	-8	-61	-61	-61

Notes: RCP: Representative Concentration Pathway.

Source: Ministère de l'environnement et du développement durable, 2015. *Contribution prévue déterminée au niveau national*. https://www4.unfccc.int/sites/submissions/INDC/Published%20Documents/Senegal/1/CPDN%20-%20Sénégal.pdf (website visited on 22 March 2022)

Table 5. Vulnerability and impacts of climate change on different stakeholders

Sectors	Vulnerability and impacts of climate change
Agriculture	Increase in evapotranspiration; disruption of the varietal map; disruption of the cropping calendar; increase in weeds and insect pests; loss of soil fertility; reduction of agricultural land (2 500 000 ha of degraded arable land in 2014); decrease in agricultural production; high vulnerability of the population dependent on agricultural production for their livelihood; decrease in the agricultural sector's contribution to GDP; decrease of 30% in cereal production expected by 2025
Livestock	Changes in fodder productivity and quality; scarcity of water and fodder resources; low water availability for livestock; decreased livestock productivity; deterioration of animal health; emerging diseases affecting livestock; changes in marketing and prices of livestock products that could strongly affect the income of pastoralists; vulnerability of pastoral communities
Fisheries	Increase in surface water temperature; decrease in trophic richness (nutrients); decrease in the upwelling index; depletion and/or migration of fish stocks; massive loss of jobs; increase in accidents at sea, loss of human lives; destruction of equipment and infrastructure related to fishing; increase in Senegal's trade balance deficit; impoverishment of fishing communities; increase in emigration and internal migration
Coastal Areas	Sea-level rise; increase in the frequency and strength of extreme events such as storm swells, strong winds; overall retreat of the coastline; loss of sandy beaches with immediate negative effect on seaside tourism; destruction of coastal infrastructure (houses, hotels, factories...); decrease in profitability of beach tourism; decrease in tourism-related jobs; slowdown of the local economy; decrease in the contribution of tourism to GDP; flooding of low-lying coastal areas; displacement of coastal communities and land conflicts; salinisation of agricultural land and underground water tables; loss of biodiversity in the coastal area
Water Resources	Shift of isohyets from north to south; vegetation gradient shift; collapse of the river flows; drying up of some rivers (Casamance, Sine Saloum) as well as some continental rivers, temporal ponds, other floodplains and other wetlands; overall falling of water table level; disruption and/or destruction of hydraulic works; threats to the demand for fresh water; degradation of water quality; increased water stress; vulnerability of ecosystems and agricultural and pastoral sectors
Biodiversity	Ecosystem fragmentation and habitat loss; regressive changes in the forest area of certain species; decrease in the productivity of certain species and ecosystem services; regression of the natural vegetation of the Niayes ecosystem of around 57% between 1972 and 2012; regression of the gallery forest area of around 22% in Casamance and 50% in eastern Senegal between 1972 and 2012

Source: FAO, 2019a. *Cadre de programmation par pays 2019-2023.* Rome. https://www.fao.org/3/ca6421fr/ca6421fr.pdf (website visited on 23 March 2022)

2.3 Development policies, strategies and programmes

25. Senegal developed and adopted its National Adaptation Programme of Action on Climate Change (NAPA) in 2006, which is structured around four priority programs: i) development of agroforestry; ii) rational use of water; iii) coastal protection; and iv) public awareness and education. Since 2015, Senegal has embarked on a process of developing national adaptation plans in nine sectors, including agriculture, livestock, fisheries, water resources, land transport infrastructure, health, coastal zones, biodiversity/tourism, and disaster risk management focusing on floods. To

operationalise the NAPA and the sectoral national adaptation plans, the Government of Senegal, with the support of its technical and financial partners, has embarked on the implementation of several projects and programs, including this project under evaluation. In the case of the NAPA, several aspects of climate change adaptation are properly taken into account by the projects and programs. However, there are shortcomings in both the design and implementation of these projects. These are: i) the weak integration in programs and projects related to the agricultural and pastoral sectors of the relevant approaches and tools for identifying the adverse effects of climate change and proposing appropriate adaptation measures; ii) insufficient coordination between programmes/projects; iii) shortcomings in the regulatory framework; and iv) poor knowledge and limited sharing of best practice approaches to climate change adaptation

26. The above-mentioned shortcomings limit the effectiveness, efficiency and sustainability of the interventions and hinder the strengthening of the country's adaptive capacities, particularly of rural populations, to cope with climate change and its adverse effects. Several priority challenges are therefore imposed on the Government of Senegal, namely: i) improving producers' and agropastoralists' access to useful and usable agroclimatic information; ii) developing an iterative approach based on the complementarity of farmers' and scientists' knowledge to strengthen knowledge on climate change adaptation; iii) identifying and disseminating good practices for climate change adaptation to facilitate their adoption by farmers and agropastoralists in order to strengthen climate change adaptation and resilience to food insecurity; and iv) promoting the integration of climate change adaptation into development policies, strategies and programmes.

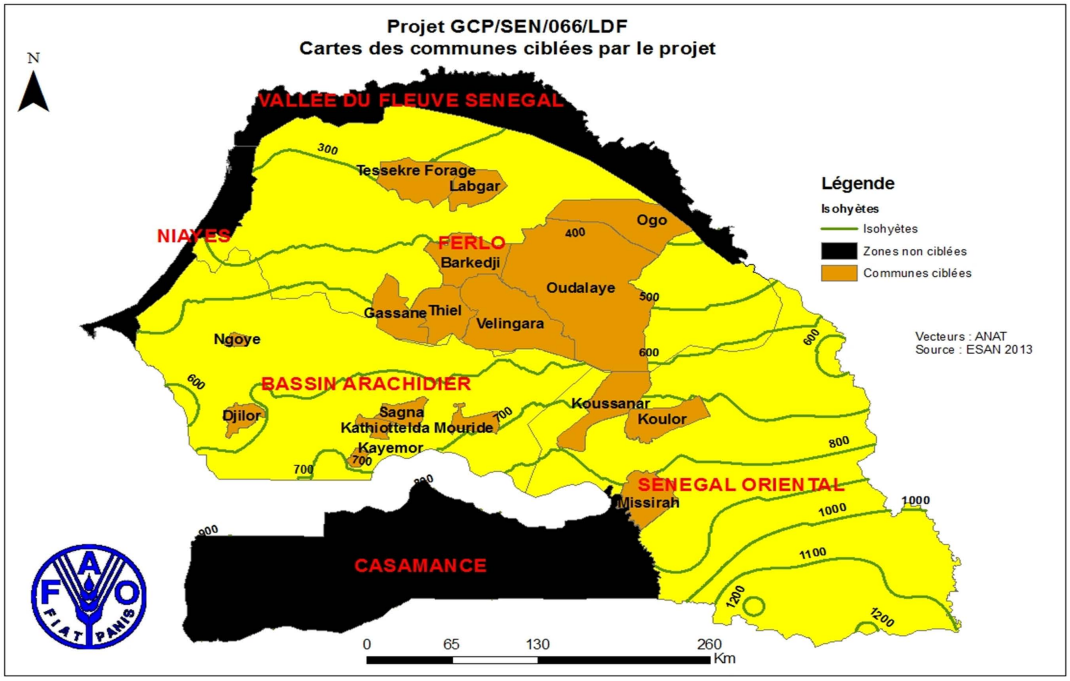
2.4 Project description

2.4.1 Project funding, duration and objectives

27. The project is funded by the Least Developed Countries Fund (LDCF) managed by GEF.

28. The initial planned duration of the project was five years, from 1 December 2015 to 31 December 2020. It has been extended to December 2021. The project budget is USD 30.8 million and includes an allocation from the GEF LDCF of USD 6.2 million and an expected co-financing of USD 24.6 million from other partners at the start of the project namely: Agricultural Value Chain Support Project (USD 3 321 254); Food Security Support Project (PASA LouMaKaf, USD 9 769 939); Support to Agricultural Development and Rural Entrepreneurship Programme (USD 4 022 146); Project to Support Local Small-scale Irrigation (USD 4 225 390); and the Great Green Wall Initiative in Senegal (USD 3 068 656). At its inception, the project mobilised other co-financing partners, including the Multinational Programme to Build Resilience against Food and Nutrition Insecurity in the Sahel (P2RS), which is a follow-up to the Project to Support Local Small-scale Irrigation, and the Regional Sahel Pastoralism Support Project (PRAPS). The project operates in seven administrative regions of Senegal (Figure 2): Louga and Matam in the sylvopastoral zone; Diourbel, Fatick, Kaffrine and Kaolack in the groundnut basin; Tambacounda in the eastern zone. It involves seventeen municipalities (Ogo, Oudalaaye, Tessekré, Vélingara Ferlo, Lagdar, Barkédji, Thiel, Gassane, Sagna, Ida Mouride, Kathiote, Kayemore, Djilor, Koussanar, Missira, Koulor, Ngoye).

Figure 2. Project intervention areas



Source: FAO. 2015. *Project document.* Map conforms to UN. 2020. *Map No. 4174, Rev. 4.*

29. The overall objective of the project is to improve the food security and nutrition of agrosylvopastoral communities through the development of livelihoods resilient to climate change effects. Two specific objectives are pursued: i) to facilitate the use of agroclimatic information and the adoption of climate change adaptation practices by agrosylvopastoral producers; and ii) to improve the capacity of the agrosylvopastoral sector to cope with climate change by integrating climate change adaptation strategies into agrosylvopastoral development policies, programs and projects. The expected outcomes of the project are as follows:

i. Adoption of agroclimatic information, innovations and best practices for climate change adaptation by agrosylvopastoral producers who have a better knowledge of the threats induced by climate change in all sectors of the three targeted agroclimatic areas.
ii. Household incomes, agricultural and agropastoral productivity of FFS/APFS have increased thanks to the implementation of climate change adaptation (CCA) practices and the use of agrometeorological information. The latter have promoted an improvement in the value chain of agricultural and pastoral products (750 FFS and 500 APFS implemented targeting 15 000 farmers and 10 000 herders trained and strengthened in CCA practices).
iii. Specific strategies for building climate change resilience are refined and piloted in agropastoral systems and scaled up, including the optimal use of genetic resources as well as dryland farming in the three agroecological zones targeted by the project (at least four CCA practices are identified and adopted by farmers, at least 25 percent of farmers' organizations participating in FFS are able to capitalize on the climate information disseminated; 15 000 farmers and 10 000 herders, 40 percent of whom are women and youth, are directly targeted by the project and at least ten action plans that take into account CCA strategies are developed by the farmers' organizations).
iv. FFS farmers and APFS herders are integrating their traditional production into improved and adapted production systems, including the Terroir Approach, as well as other income-generating activities (beekeeping, poultry farming, small ruminants, horticulture,

etc.), thus generating a 20 percent increase in their family income and 25 percent increase in their capital accumulation.

v. National institutional capacity to develop and integrate CCA policies, strategies and programs in support of FFS/APFS is increased, passing from a reactive response to a proactive approach (30 percent of operational projects in sectoral programs include CCA components in their budgets).

vi. A national climate resilience fund integrating the various existing funds is established and used by key stakeholders, mobilising twice the initial GEF/LDC Fund contribution by the end of the fourth year.

2.4.2 Expected project components, effects and outputs

30. The project is organised around four components, including three technical components and a coordination and management component.

Component 1. Development and refinement of climate change adaptation (CCA) strategies and tools based on improved or new knowledge and piloting of CCA practices in agrosylvopastoral systems. This component paves the way for ensuring that CCA innovations, technologies and practices as well as agrometeorological information are available for large-scale replication. Component 1 has one effect and three outputs.

Effect 1.1. Strengthened and systematised knowledge and capacities to collect, analyse and disseminate agroclimatic data to improve local CCA practices and identification in selected eco-geographical areas of CCA innovations/practices that can be scaled up.

Output 1.1.1. ANACIM and the Ecological Monitoring Centre (CSE) analysed threats, opportunities and constraints due to climate change and proposed an integrated CCA strategy for each specific project area.

Output 1.1.2. Information management systems and tools used by the national multidisciplinary working group are strengthened to integrate climate change aspects; local multidisciplinary working groups are created and participate in the agroclimatic advisory system.

Component 2. Capacity building and dissemination of CCA strategies, technologies and best practices to small-scale agrosylvopastoral producers through a growing network of field schools. This component is the pillar of the project with regard to the extension and adoption of CCA practices and technologies. It is in line with the field schools developed in Senegal by FAO and other partners, but with the addition of CCA-related aspects. Component 2 has two effects and nine outputs.

Effect 2.1. Use and adoption of agroclimatic information, innovations and climate change adaptation practices by agrosylvopastoral producers.

Effect 2.2. Increased household incomes and agricultural and pastoral productivity of the participants in the field schools, thanks to the use of CCA practices and agrometeorological information and to the improvement of the value chains of agricultural and livestock products.

Output 2.1.1. Specific training programs for field schools focused on CCA, ecosystem resilience and integration between agricultural, sylvopastoral production systems and nutrition are developed and disseminated.

Output 2.1.2. Facilitators are trained in CCA practices and strategies, gender and nutrition issues.

Output 2.1.3. Farmer Field Schools are established or strengthened to integrate CCA practices into production systems and training of farmers.

Output 2.1.4. Dimitra Listeners' clubs (Dimitra clubs) are established and empowered to allow networking of field schools.

Output 2.1.5. Good practices and lessons learned for better adaptation to climate risks are capitalized on and disseminated at the local level.

Output 2.2.1. Agrosylvopastoralist organizations are strengthened through the adoption of new CCA technologies and innovations as well as improved production and value chains.

Output 2.2.2. At least one farmer per field school multiplies and markets climate change-adapted seeds with high nutritional value.

Output 2.2.3. New adapted varieties of cereals, fruits and vegetables and fodder species are introduced in the intervention areas to improve the food and nutrition security of the population.

Output 2.2.4. Land-use plans and management plans for grazing areas and livestock rangelands are strengthened with the participation of farmers' and pastoralists' associations and local authorities.

Component 3. Integration of CCA strategies in a coordinated manner into policies, programs and projects, and development frameworks of the agrosylvopastoral production sectors at the national level and in the vulnerable areas of the project. This component will integrate climate change considerations into the policies, programs and planning strategies of the agrosylvopastoral sector. Three outputs and two effects are expected from Component 3.

Effect 3.1. Mainstreaming of the CCA dimension into national policies, strategies and programs, moving from a reactive response to a proactive approach.

Effect 3.2. A national climate change resilience fund has been established within an existing financing mechanism to support climate change adaptation activities at the local level.

Output 3.1.1. Awareness modules for decision makers have been developed and institutional capacities have been strengthened to integrate CCA into policies, programs and projects, based on the school-field approach.

Output 3.1.2. A high-level cross-sectoral group has been set up in order to define and adopt the CCA and resilience action plan to be integrated into policies, programs and projects.

Output 3.2.1. A national climate resilience fund is created through an open window at one of the existing funds.

Component 4. Coordination and monitoring-evaluation aim at ensuring the systematic results-based monitoring and evaluation of the project's progress. Thus, this component will monitor and evaluate the achievement of the expected outputs and effects indicated in the project results framework, the dissemination of information on the project and the use of data and lessons learned for replication in other areas. One effect and three outputs are targeted by Component 4.

Effect 4. The implementation of the project based on results management and applying lessons learned from the project in future actions.

Output 4.1 A systematic field data collection system to monitor project outcome indicators is operational.

Output 4.2 Mid-term and final evaluations have been conducted.

Output 4.3 A communication strategy has been developed.

2.4.3 Institutional, organizational and management framework of the project

31. The project is implemented by FAO in collaboration with the Government of Senegal. FAO, as the GEF Agency, is responsible for the supervision and technical guidance of the project during its implementation. It is responsible for ensuring compliance with GEF policies and criteria and for the efficient and effective achievement of project objectives, outputs, and outcomes. The project was implemented in close collaboration with the Ministry of Agriculture and Rural Equipment. Other technical implementing partners include the Ministry of Livestock and Animal Production,

the Ministry of Environment and Sustainable Development, the Ministry of Territorial Governance, Development and Land Use Planning, the CSE and ANACIM.

32. The technical steering committee is the project's guiding, supervisory and monitoring body. It is chaired by the Minister in charge of Agriculture and Rural Equipment or his representative and meets annually in ordinary session.

33. The technical steering committee is composed of:

i. senior representatives of the government administration: the chairmen of the "Development and Land Use Planning" committees of the National Assembly and the "Living Environment and Sustainable Development" committee of the Economic, Social and Environmental Council; the environmental advisor of the Prime Minister's Office; Representatives of the Ministers in charge of the Economy, Finance and Planning, of Environment and Sustainable Development, of Livestock and Animal Production, of Territorial Governance, of Development and Land Use Planning; the President of the National Committee on Climate Change (COMNACC); the Governors of the regions of Louga, Matam, Diourbel, Fatick, Kaffrine, Kaolack and Tambacounda;
ii. representatives of technical organizations: the Director General of ANACIM; the Director of CSE; the Executive Director of the Unit for the Fight Against Malnutrition; the Executive Secretary of the National Food Safety Council; the Director of the non-governmental organization (NGO) "Innovation, Environnement, Développement/Afrique";
iii. representatives of technical and financial partners: the FAO representative, the GEF focal point, the representative of the technical and financial partners' thematic group on rural development and food security; and
iv. representatives of the civil society and professional platforms and organizations: the representative of the National Framework for Climate Services; the President of the National Council for Concertation and Rural Cooperation; the President of the Conseil national de la maison des éleveurs.

34. The Secretariat of the Technical Steering Committee is provided by the Project Coordination Unit (PCU) within the FAO Representation in Senegal. The PCU includes a national project coordinator, three technical experts, and an assistant in charge of finance and operations. It relies on a field mechanism made up of technical focal points who supervise field schools and on the mechanism of the project's implementing partners.

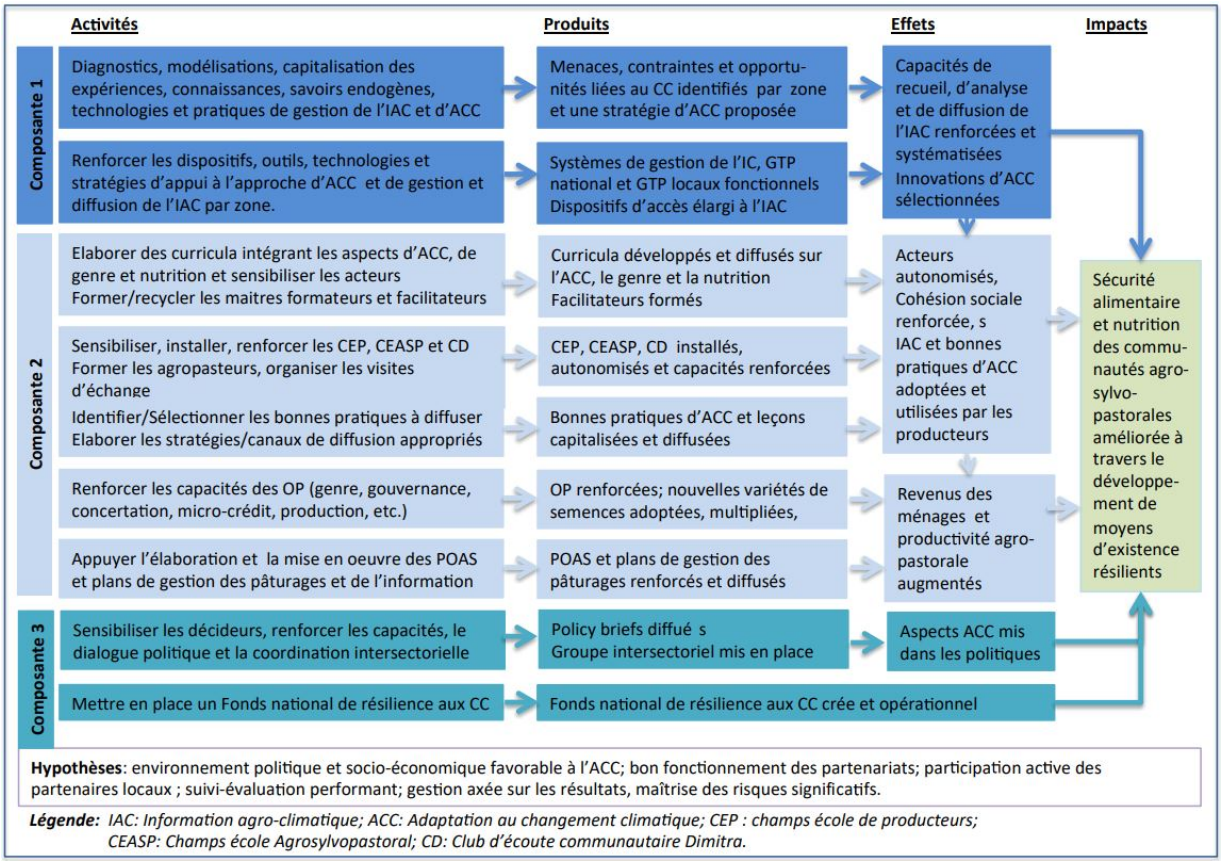
35. On the basis of letters of understanding, memoranda of understanding, conventions, partnerships and contracts, the PCU mobilises funding partners, technical institutions and suppliers to support the delivery of specific activities in the field.

2.4.4 Theory of change reconstructed at mid-term

36. The theory of change was reconstructed prior to the start of the survey phase and then refined at mid-term (Figure 3). This theory is based on the implementation of activities to generate outputs that, in turn, will lead to the achievement of expected outcomes provided that a set of conditions (assumptions) is met. In the longer term, the project will have an impact on improving the food security of populations. The lever of change is based on awareness and capacity building of stakeholders from the central to the local level through integrated and complementary approaches.

37. At mid-term, the interviews conducted with the stakeholders in charge of project implementation had confirmed certain risks and identified other significant risks that could negatively affect the project's success and that are integrated as hypotheses in the project's theory of change. One hypothesis for the project's success is that the Government of Senegal, policy makers, and rural development stakeholders continue to keep climate change adaptation high on the country's agenda by facilitating its integration into policy and planning frameworks and by allocating the necessary resources. Similarly, the interest and commitment of beneficiaries (producers, farmers' organizations, community development organizations, etc.) were indicated in the Project Document as necessary for the success of the project throughout its implementation. The project should continue to spur this interest/commitment while putting in place, sufficiently early and throughout its duration, a set of conditions sufficient to foster and enable beneficiary ownership of the knowledge and innovations proposed and tested.

Figure 3. Theory of change reconstructed by the evaluation team at mid-term



Source: FAO. 2019.b *Mid-term Review of Project "Mainstreaming Ecosystem-Based Approaches to Climate-Resilient Rural Livelihoods in Vulnerable Rural Areas Through the Farmer Field School Methodology"*.
https://publicpartnershipdata.azureedge.net/gef/GEFDocuments/ada8c925-df7c-e811-8124-3863bb2e1360/MTR/MidtermReviewMTR__GEFID5503_MTR_FAO_Senegal_French.pdf (website visited on 23 March 2022)

3. Main findings

3.1 Relevance

EQ 1. Have the project outcomes been consistent with: i) the GEF focal areas and operational programme strategies; ii) national priorities and the FAO Country Programming Framework?

EQ 2. Was the project design appropriate to achieve the expected outcomes?

EQ 3. What is the level of coherence of synergies between stakeholders (institutional, then implementing stakeholders)?

EQ 4. Has the relevance of the project changed since its design as a result of new national policies, plans or programs that affect the relevance of the original project objectives and goals?

3.1.1 Relevance to national priorities

38. At the national level, the project is in line with the long-term vision of Senegal's development as set out in the Emerging Senegal Plan and the sectoral programs and strategies. Indeed, the project is aligned with the Plan's two priority action plans (PAPs): PAP 1 2014–2018 (Ministry of Economy and Finance, 2014) and the Accelerated and Adjusted PAP 2019–2023 (Republic of Senegal, 2019), particularly with regard to strategic axes 1 "Structural transformation of the economy and growth" and 2 "Human capital, social protection and sustainable development". PAP 1 (2014–2018) aims at supporting family farming, climate resilience and risk and disaster management, and at integrating climate change adaptation into the country's sustainable development path. The Accelerated and Adjusted PAP (2019–2023) seeks, among other objectives, to "strengthen human capital, social protection and sustainable development by promoting social protection and reducing environmental degradation, natural resources and the adverse effects of climate change." The project is also in line with the Agrosylvopastoral Law (Republic of Senegal, 2004), a legal framework for agrosylvopastoral development that defines the general provisions and major orientations for the development of the agricultural sector to reduce poverty. One of the specific objectives aims (Article 6) at: "Reducing the impact of climatic, economic, environmental and sanitary risks, through water control, diversification of production and training of rural people, in order to improve the food security of the population and eventually achieve the food sovereignty of the country". The project is integrated into the programs "Increasing production and improving the productive base" and "Strengthening the capacity of stakeholders" of the National Agricultural Investment Programme 2011–2015 (Republic of Senegal, 2011) and in Specific Objectives 2 and 4 of the National Agricultural Investment Programme for Food Security and Nutrition (Ministry of Agriculture and Rural Equipment, 2018), particularly in the following strategic options: Combating deforestation and land degradation; promoting agroecology and agrosylvopastoral integration; promoting the transfer and development of new technologies; preventing chronic and acute malnutrition; promoting food diversification; etc.

39. Finally, the project is in line with the new *Lettre de politique du secteur de l'environnement et du développement durable 2016-2020* (Ministry of Environment and Rural Development, 2016). Indeed, one of the objectives of this sector policy is to "reduce the degradation of the environment and natural resources, the adverse effects of climate change and the loss of biodiversity." The project is also aligned with the priorities of the National Adaptation Programme of Action on Climate Change (Ministry of Environment and Rural Development, 2006) and contributes to the testing and dissemination of adaptation options proposed by the NAPA for the agriculture sector. It contributes directly to the implementation of NAPA Priority Programme 1 "Development of agroforestry" through training activities, the fight against soil fertility decline and support for crop

diversification and innovation in cropping systems. It also contributes to Priority Programme 4 "Public awareness and education".

40. In conclusion, the relevance of the project to national priorities is rated as Highly Satisfactory.

3.1.2 Alignment with FAO Strategic Objectives

41. The project is consistent with FAO strategic priorities at the time of its design, including two FAO strategic objectives (Strategic Objective 2 "Make agriculture, forestry and fisheries more productive and sustainable" and Strategic Objective 5 "Increase the resilience of livelihoods to disasters"). It is also aligned with the new FAO Strategic Framework 2022–2031 (FAO, 2021b) – because of its focus on improving agricultural production and the environment – and with the FAO Strategy on Climate Change (FAO, 2017), through its Outcome 1 "Enhanced capacities of Member Nations on climate change through FAO leadership as a provider of technical knowledge and expertise" and its Outcome 2 "Improved integration of food security and nutrition, agriculture, forestry and fisheries considerations within the international agenda on climate change through reinforced FAO engagement."

42. At the national level, the project contributes to implementing the country programming frameworks (2019–2023 and 2013–2017) of the FAO Representation in Senegal, in force during its implementation. Indeed, the project components, effects and outputs contribute to the achievement of the three priority areas of the 2019–2023 Country Programming Framework (FAO, 2019a). Priority Area 1 "Promotion of a sustainable, diversified, competitive, inclusive and growth-enhancing agrosylvopastoral, fisheries and aquaculture sector" aims at: i) the modernisation, diversification and sustainable intensification of agrosylvopastoral, fisheries and aquaculture production, through water control, the promotion of decent employment for young people in rural areas, including migrants, and the reduction of post-harvest losses; and ii) the development of policies, projects and programs integrating cross-cutting dimensions such as climate change, gender, nutrition, social protection, migration and "One Health". Priority area 2 promotes "improvement of food security and nutrition and strengthening the resilience of vulnerable populations". Priority area 3 "Sustainable management of the environment and natural resources" contributes to: the scaling up of agricultural practices integrating climate change; the promotion of the "*Caisse de résilience*" approach; information, monitoring and early warning systems for food security and nutrition, transboundary threats and rapid responses to animal diseases. Priority area 3 "Sustainable management of the environment and natural resources" aims at contributing to: the scaling up of good agroecological practices in production systems, in connection with farmers' and agropastoralists' field schools (FFS/APFS); the preservation and restoration of degraded lands and the promotion of community pastoral reserves. The project was also consistent with the priority areas of the 2013–2017 Country Programming Framework (FAO, 2013): Priority area 1 "Strengthening food security governance and improving productivity and competitiveness of agricultural products"; Priority area 2 "Sustainable management and restoration of natural resources and the environment"; Priority area 3 "Building resilience by strengthening the system for prevention and management of food and nutrition crises".

43. Finally, the project meets the requirements of the FAO capacity-building strategy, which aims at promoting long-term change by encouraging the implementation of activities, the ownership and sustainability of results by national stakeholders (government and civil society). The project's approach takes into account the three dimensions of capacity building: individual and organizational capacities; technical and functional capacities; and the enabling environment. The project is based on the basic principles and guidelines of the FFS approach, which allows it to better take into account CCA issues and the challenges of farmers, agropastoralists and

pastoralists. The project integrates recommendations from FAO Policy on Gender Equality 2020–2030 (FAO, 2021a).

44. Based on the above information, the relevance of the project to FAO priorities is rated as Highly Satisfactory.

3.1.3 Alignment with GEF strategic priorities

45. The project contributes to three GEF strategic objectives related to climate change adaptation: i) reduce vulnerability and increase resilience through innovation and technology transfer for climate change adaptation; ii) mainstream climate change adaptation and resilience for systemic impact; and iii) foster enabling conditions for effective and integrated climate change adaptation. The project design complied with GEF policy requirements and guidelines related to: co-financing (GEF, 2018a and 2018b); public participation and stakeholder engagement (GEF, 2018c and 2018d); monitoring and evaluation (GEF, 2019c); application of the incremental cost principle (GEF, 2007a), including incremental cost financing for interventions that contribute to environmental mitigation through co-financing with other parties; gender equality (GEF, 2017b and 2017c); and environmental and social safeguards (GEF, 2019a and 2019b). As far as co-financing is concerned, indicative information on the amounts, sources and types of co-financing expected was detailed in the approved project document, which can serve as a basis for assessing the level of mobilisation of this co-financing. Letters of commitment to co-finance the project have been signed with partner projects, including LouMaKaf PASA, PRAPS and P2RS. Regarding public participation and stakeholder engagement, the project implemented a participatory, multistakeholder and multisectoral approach during the preparation, formulation, start-up, implementation and review phases of the project, which generated interest and promoted the ownership and participation of the government, farmers' organizations, administrative and local authorities, technical services and non-governmental organizations. Gender issues have been analysed and documented in the Project document and activities targeting men, women and youth have been identified, such as FFS, APFS, Dimitra clubs, climate resilience funds and VSLA funds. Most of the logical framework indicators are also disaggregated by gender. However, the project does not provide any indication on the taking into account of people with disabilities.

46. Finally, the project is in line with the national and international strategic reference frameworks. Indeed, through its objectives, it is in line with the 2030 Agenda for Sustainable Development, in particular by contributing to the targets of Sustainable Development Goals (SDGs) 1, 2, 5 and 13, which are respectively: End poverty in all its forms everywhere; End hunger, achieve food security and improved nutrition and promote sustainable agriculture; Achieve gender equality and empower all women and girls; and Take urgent action to combat climate change and its impacts.

47. Based on the above information, the relevance of the project to GEF priorities is rated as Highly Satisfactory.

3.1.4 Relevance to the needs of the beneficiaries

48. The project has provided support that has enabled beneficiary farmers and agropastoralists to meet some of the needs expressed during the consultation phases and the diagnostic studies carried out by the project in each agroecological zone. The need for access to agroclimatic information was met through the dissemination of agroclimatic information through various channels (voice messages and SMS, community radios and pictograms displayed in the villages, local focal points). In the opinion of the farmers interviewed, the agroclimatic information received has enabled them to make informed decisions on the choice of crops and varieties, sowing dates, times for applying fertilisers and phytosanitary products, etc. The capacity-building needs of

farmers and agropastoralists on good practices for climate change adaptation and resilience have been covered at the level of the villages where FFS and APFS have been set up and are functional, through practical and theoretical training carried out by the facilitators and the relay facilitator producers. In fact, the training topics delivered were identified jointly with the farmers and agropastoralists on the basis of a diagnosis of the problems encountered in their agricultural and agropastoral activities. For example, in the Eastern Senegal area, which is heavily affected by water and wind erosion, farmers were trained in soil defence and restoration techniques (stone barriers, half-moons, water conservation [zaï]) in order to combat the degradation of their land. In the sylvopastoral zone, which is marked by an upsurge in bush fires, overexploitation of pastures and an upsurge in animal diseases, agropastoralists have been trained and raised awareness on good practices for fighting bush fires, regenerating pastures (deferred grazing), vaccinating livestock, and fattening cattle, sheep and improving poultry farming. In the villages where Dimitra clubs are established, the women, youth and elderly interviewed said they have contributed to the strengthening of understanding, social cohesion and intra- and inter-generational dialogue on community development issues at the village level (insalubrity, female genital mutilation, early marriage, gender-based violence, agricultural diversification, pasture degradation, community infrastructure) by encouraging the suggestion and the implementation of endogenous solutions (collective works, community gardens, contributions, alerting the authorities and looking for partners). In the villages where the VSLA funds and the IGAs are created, the women beneficiaries interviewed said that these have facilitated their access to credit and rural savings to buy food, school supplies for their children, medicines, goods for small trade, sheep and goats, etc.

49. However, the capacity-building needs of some farmers and agropastoralists were not met in villages where the planned FFS and APFS were not set up or did not function, due to administrative bottlenecks, the departure of the facilitator, the late introduction of inputs, the destruction of crops by animals due to the lack of fencing, etc. In the sylvopastoral zone of the Ranérou Department, despite the needs expressed by agropastoralists to have access to Dimitra clubs and IGAs, these were not put in place. The implementing partner, Agronomes at vétérinaires sans frontières (AVSF), chose to set them up in the department of Linguère. The project did not meet the need for equipment to protect the plots of land in FFS and APFS from animal raiding or for access to water to irrigate market garden crops in FFS and women's community gardens. Finally, in the village of Kouthiary farydela, women expressed the need to be connected to the water distribution network to reduce the drudgery and time spent in fetching water in order to concentrate on their agricultural activities; but this request was not met.

50. Moreover, some of the technologies and practices disseminated by the project are not adapted to the socioeconomic context and challenges of the area. The adoption of fodder crops disseminated by the project is jeopardised by constraints on access to water, seeds (cuttings) and the cost of irrigation equipment. The use of multinutrient blocks for livestock feeding is hampered by the difficulties encountered by agropastoralists in accessing inputs and equipment locally and by competition from mineral licks manufactured by agribusiness. Similarly, the use of climate-resilient seeds is facing local availability challenges, due to the failure of the grassroots seed multiplication programme.

51. Based on the above information, the relevance of the project to beneficiaries' needs is rated as Satisfactory.

3.1.5 Complementarity with existing interventions

52. The project is complementary to existing interventions. Indeed, the choice of the project intervention areas was made on the basis of the following preliminary criteria: i) the eco-geographical zones most vulnerable to climate variability; ii) the departments where the

malnutrition index is worrying to precarious; iii) the departments where the level of soil degradation is high; and iv) the municipalities and villages where projects are already operating (whether or not co-financed) with which it is possible to develop synergies. The fourth criterion resulted in the implementation of the project, in most cases, in areas where complementarity with other interventions was possible. Thus: i) in the groundnut basin, the project was complementary to the Agricultural Value Chain Support Project (PAFA), PASA LouMaKaf, and the Project to Support Local Small-scale Irrigation (PNDPIL); ii) in the Ferlo sylvopastoral zone, it was complementary to the Support to Agricultural Development and Rural Entrepreneurship Programme (PADAER), the Agricultural Development Project in Matam, the Great Green Wall, and PASA LouMaKaf; and iii) in eastern Senegal, the project was complementary to PADAER, YAJEENNDE, BAMTAARE, the Livestock Development Project in Eastern Senegal and Upper Casamance (PDESOC), specific activities implemented by the World Food Program, and the Project to Support Local Small-Scale Irrigation.

53. In conclusion, the evaluation rates the complementarity of the project with existing projects as Highly Satisfactory.

3.2 Effectiveness

EQ 5. To what extent have FAO interventions contributed to improving the food security and nutrition of agrosylvopastoral communities through the development of livelihoods resilient to climate change impacts: i) by facilitating the use of agroclimatic information and the adoption of climate change adaptation practices by agrosylvopastoral producers; ii) by improving the capacity of the agrosylvopastoral sector to cope with climate change by integrating climate change adaptation strategies into agrosylvopastoral development policies, programs and projects?

EQ 6. To what extent does the actual outcome of the project match with the expected effects?

EQ 7. What is the level of achievement of outcomes at the level of each output?

EQ 8. What is the project's contribution to global environmental benefits, based on monitoring tools?

Effect 1.1. Strengthened and systematised knowledge and capacities to collect, analyse and disseminate agroclimatic data to improve local climate change adaptation practices and identification in selected eco-geographical areas of CCA innovations/practices that can be scaled up.

54. The outcome related to the operation of multidisciplinary working groups has been partially achieved: indeed, 11 out of the 17 multidisciplinary working groups planned have been revitalised at the departmental level and the national multidisciplinary working group has been strengthened. The technical and financial support provided by the project has enabled the multidisciplinary working groups to collect, analyse and disseminate agroclimatic information in the form of newsletters, radio and voice messages to farmers' organizations, farmers, agropastoralists and technical services. However, the operation of the multidisciplinary working groups ended in 2018 following the termination of the funding provided by the project to ANACIM under the MOU with FAO. This denotes a weak ownership of their mandate by the members of the multidisciplinary working groups.

55. The outcome related to the identification, selection and validation of four CCA practices was achieved and exceeded. In fact, eight CCA practices were selected and validated. These include: the use of fodder crops (neema), the use of cowpeas for fodder, water management with mulching and zaï, the use of short-cycle varieties, the use of stone barriers against land degradation, the promotion of organic manure, crop association, the production of multinutrient blocks and the treatment of straw with urea. The selection of these CCA practices followed a participatory and inclusive process involving farmers, agropastoralists, women, technical services, etc. However, it

should be noted that although these good practices are useful for farmers and agropastoralists, they are not new to the project area because some of these farmers were already trained in these practices by other projects (PADAER 1, PAFA, Village Organization and Management Project – Phase 2, Agricultural Development Project in Matam) or by non-governmental organizations and government structures (National Institute of Pedology, National Agency for Agricultural and Rural Council, Senegalese Institute of Agricultural Research, etc.). In addition, the project disseminated these technologies to farmers and agropastoralists without first conducting technical and financial feasibility studies or cost-benefit analyses to optimise their use by beneficiaries. For example, fodder crops are not well adapted to the context of the sylvopastoral zone, which is marked by the mobility of livestock, difficulties in accessing water for irrigation, the high cost of water and the lack of local availability of seeds. Similarly, the manufacture of nutrient blocks for livestock feed is hampered by the availability of inputs and equipment, as well as competition from mineral licks manufactured by agribusiness. In the areas of the groundnut basin and eastern Senegal, the promotion of organic manure use is hampered by the availability of raw materials in these areas. In addition, the promotion of short-cycle varieties is not accompanied by a major seed multiplication programme to ensure their availability.

56. The outcome aiming at making agroclimatic information available to farmers and agropastoralists through FFS and APFS, is achieved. Indeed, through focal points at the level of FFS, APFS and multidisciplinary working groups, agroclimatic information provided in the form of voice messages and SMS in local languages has been regularly transmitted to farmers and agropastoralists and disseminated in villages where FFS and APFS have been set up. According to the 2020 Project implementation report, a total of approximately 10 000 farmers and agropastoralists received agroclimatic information through multidisciplinary working groups, including 1 211 voice messages in local languages. The agroclimatic information disseminated is well received by the farmers and agropastoralists met in the field and has helped them make decisions in agricultural and agropastoral activities as well as in the protection of children against lightning and heavy rains. For example, women farmers in the municipality of Djilor said that thanks to the agroclimatic information they received – which predicted the late arrival of the rainy season – they planted short-cycle crops (maize, cowpeas, watermelon, sesame) instead of long-cycle crops, which allowed them to optimise their yields and harvests.

57. However, as explained for Output 1.1.2, it is unfortunate that since the end of the MOU between FAO and ANACIM, farmers and agropastoralists no longer receive climate information. At the time of this evaluation, no alternative had been proposed, given that the reflections generated by the project on the sustainability of financing multidisciplinary working groups had not led to concrete actions by ANACIM and the Government of Senegal.

58. Based on the above findings, the achievement of Effect 1.1 is rated as Satisfactory.

Output 1.1.1. ANACIM and CSE analysed threats, opportunities and constraints due to climate change and proposed an integrated CCA strategy for each specific project area.

59. The project has developed, with the support of local populations – including women and partner structures – quality knowledge products in each of the three agroecological zones: i) a study to update knowledge on climate in the sylvopastoral zone, the groundnut basin, and eastern Senegal (carried out by ANACIM in 2017); ii) the diagnosis of threats, challenges, and opportunities related to climate change and endogenous knowledge on adaptation in the sylvopastoral zone, the groundnut basin, and eastern Senegal (carried out by ANACIM, CSE, FAO, and GEF in October 2017); iii) the characterisation of pastoral units in Senegal: Synthesis elements in water bore areas of the sylvopastoral zone (carried out by the Ecological Monitoring Centre in 2017); and iv) a diagnosis of the operation of (national and local) multidisciplinary working groups and a feasibility

study of setting up multidisciplinary working groups at the communal level in Senegal (carried out by ANACIM in December 2017). These studies have been discussed and approved at the local, regional, and national levels by stakeholders.

60. This work has provided other stakeholders with greater insight into: i) the climate-change vulnerabilities in each zone; ii) the constraints, threats, consequences and impacts of climate change on plant, forest and animal resources in the zone; iii) the current CCA strategies based on the endogenous knowledge of the local populations as well as the optional CCA strategies and their respective priorities, the resources available for their adoption and the factors that may prevent their adoption by the populations; and iv) the strengths, weaknesses, opportunities, threats and support needs of the pastoral units, the national multidisciplinary working group and the local multidisciplinary working groups.

61. On the basis of the above information, a compendium of good CCA practices deemed to be a priority has been produced and translated into three local languages (Serer, Wolof and Pular). The good CCA practices which have been identified as priorities, focus on improving: i) the sustainable management of natural resources and the restoration of biodiversity; ii) agricultural production systems and the promotion of sustainable agriculture; iii) animal health and livestock production; iv) fisheries production techniques; v) the promotion of local products; vi) the promotion of domestic energy-saving technologies; vii) the access to agroclimatic information; and viii) farmers' capacities.

62. The evaluation has noted an approach, developed by the project team, that seeks to foster synergy, harmonisation and pooling of resources. This allowed ANACIM and the CSE to work together to produce and develop the above-mentioned knowledge products. This synergistic approach is well received by these structures. The evaluation noted with satisfaction the participatory, inclusive and reasoned methodological approach adopted by FAO and its partners (ANACIM and CSE). This approach allowed for the active involvement of the beneficiary populations (men, youth, women), farmers' organizations, technical services and non-governmental organizations in each agroecological intervention zone in: i) the analysis of climate change constraints and threats; ii) the assessment of resource vulnerability; iii) the identification of adaptation strategies based on local and scientific knowledge; and iv) the identification of priorities for good adaptation practices, etc.

63. However, these knowledge products were poorly disseminated and communicated to the various stakeholders in the agrosylvopastoral sector. Several institutional stakeholders interviewed in the field do not have final versions (printed or electronic) of these documents, even though they actively participated in their drafting. In addition, it is important to note that the CSE and ANACIM have been poorly involved in monitoring the use of these knowledge products, in order to capitalize on the achievements and to make adjustments.

64. In conclusion, the evaluation team rates the level of achievement of Output 1.1.1 as Satisfactory.

Output 1.1.2. Information management systems and tools used by the national multidisciplinary working group are strengthened to integrate climate change aspects; local multidisciplinary working groups are created and participate in the agroclimatic advisory system.

65. The project has carried out, within the framework of the partnership with ANACIM, a diagnostic study of the existing local multidisciplinary working groups. This study has helped to determine the conditions for establishing new multidisciplinary working groups, to design and set up a system of communication between the national multidisciplinary working group, the departmental multidisciplinary working groups and the facilitators of FFS and APFS in order to

disseminate meteorological information to the rural populations. Based on the findings of the diagnostic study, the project has: on the one hand, supported the revitalisation and/or creation of 11 multidisciplinary working groups (including three new ones) out of the 17 planned, the installation of meteorological equipment at ANACIM weather stations as well as the displaying of pictograms for climatic information at the level of the most frequented places in villages; on the other hand, strengthened the capacities of the national multidisciplinary working group to facilitate communication and create interactions with the local multidisciplinary working groups, contributing financially to the dissemination of climatic information by ANACIM and the multidisciplinary working groups through several communication channels (voice messages and SMS, community radios, newsletters). The local multidisciplinary working groups functioned during the duration of the MOU with ANACIM and climate information was regularly transmitted to the populations, facilitators and focal points.

66. However, following the termination of the project funding, the multidisciplinary working groups are no longer active. Thus, meetings are no longer or rarely held and agroclimatic information is no longer communicated. ANACIM claims that it does not have sufficient financial resources of its own to ensure the functioning of the multidisciplinary working groups. It should be noted that FAO does not seem to have placed enough emphasis on the dialogue around the sustainability of the financing of these groups, but has rather provided financial and technical support for their operation.

67. In conclusion, the evaluation team rates the level of achievement of Output 1.1.2 as Moderately Satisfactory.

Effect 2.1. Use/adoption of agroclimatic information, innovations and climate change adaptation practices by agrosylvopastoral producers.

68. Under Effect 2.1, the project targeted the following outputs: i) at least 25 percent of the farmer organizations participating in FFS use climate information and disseminated climate change adaptation and resilience practices/technologies (Least Developed Countries Fund [LDCF] Adaptation Monitoring and Assessment Tool [AMAT] Indicator 3. 1.1); ii) twenty-five thousand people (40 percent of whom are women and youth) are direct beneficiaries of the project (LDCF AMAT Indicator 3.1.1.2); and iii) at least ten action plans of farmers' organizations integrate CCA strategies.

69. The project has introduced or disseminated agroclimatic information, good CCA practices and technologies through the APFS and FFS approach. However, the project has not conducted systematic data collection surveys and does not have a database to assess the rate of use or adoption of climate information and good CCA practices and technologies. This makes it difficult to provide accurate adoption rates and the specific number of beneficiaries. FAO's APFS approach report dated July 2021 indicates that as part of the ongoing capitalisation process on the APFS approach, participatory assessments were conducted in June 2021. These were based on informal surveys in focus group discussions in the departments of Linguère and Ranérou. These evaluations concerned 37 APFS in six municipalities, four of which were in the department of Linguère (Thiel, Tessékré, Labgar and Barkédji) and two in the department of Ranérou (Vélingara Ferlo and Oudalaye).

70. Exchanges with beneficiaries reveal that agroclimatic information has been well used by agropastoralists and farmers to make choices about the varieties to be grown, the sowing periods, fertiliser application and phytosanitary treatment, etc. The results of the informal survey and field interviews show that at the level of APFS, several CCA practices and technologies – such as fodder crops, the manufacture of multinutrient blocks, improved village poultry farming and straw

processing – although they are appreciated and mastered by agropastoralists, are very poorly adopted due to several technical (lack of equipment, inputs, materials) and financial (high cost, lack of financial resources) constraints. The adoption of fodder crops is limited by challenges related to access to water, securing plots of land, but also by the local availability of cuttings. The adoption of multinutrient blocks is limited by the local availability of certain inputs such as molasses, tricalcium phosphate and manufacturing equipment. The adoption of improved village poultry houses is hampered by financial constraints to make the basic investment in the improved and equipped poultry house as well as to acquire sanitary and feed inputs. The treatment of straw with urea is limited by the constraint of digging the pit and the local availability of urea. At the FFS level, the adoption of compost is limited by the availability of cow dung in the groundnut basin and eastern Senegal. In addition, the adoption of short-cycle varieties of millet, maize, and rice is hampered by the lack of local availability of seeds. The seed multiplication programme (groundnuts, rice, maize, millet) in the groundnut basin and Casamance, under the MOU with the National Agency for Agricultural and Rural Council, has not yielded the expected results. In fact, out of nine farmers' organizations selected for seed production, only four were able to produce, collect and package seeds. This can be explained by the fact that the seeds (groundnut) were not planted or were planted late due to certification problems (some selected farmers' organizations are not certified for seed production and the proposed biofertile millet variety is not certified in Senegal), or due to the late planting of pre-basic seeds, or problems with germination, choice, etc. Similarly, the adoption of good market gardening practices is limited by the challenges of access to water (wells, mini-water bores, irrigation equipment) encountered by farmers and agropastoralists.

71. In addition, at this stage, the late implementation of FFS and APFS has directly impacted the large-scale adoption of these technologies. Indeed, some of the FFS/APFS operated only once while others experienced many difficulties at the outset, whereas the FFS guidance document published by FAO states that it takes at least three years of accompaniment for the farmer or agropastoralist to adopt the practices disseminated. In addition, the project was late in putting in place some of the support measures necessary for the potential adoption of CCA practices and technologies (fences, drip irrigation system, chicken coop, etc.).

72. The third indicator "At least ten action plans of farmers' organizations integrate CCA strategies" is achieved, but farmers' organizations do not have the financial resources to implement their action plans. In addition, the climate resilience fund that has been set up does not directly finance the action plans of farmers' organizations.

73. In conclusion, the evaluation rates the achievement of Effect 2.1 as Moderately Unsatisfactory.

Output 2.1.1. Specific training programs for field schools focused on CCA, ecosystem resilience and integration between agricultural, sylvopastoral production systems and nutrition are developed and disseminated.

74. The project has revised FFS and APFS programs to better integrate training into good CCA practices. Indeed, the evaluation of existing training programs revealed that the CCA dimension was poorly taken into account. On this basis, the development of new programs was based on the good CCA practices identified as priorities in the report of the study "Diagnosis of threats, constraints and opportunities related to climate change and endogenous adaptation knowledge in the sylvopastoral zone, the groundnut basin and eastern Senegal" and on the existing training programmes. The revised programmes were finalised in 2017. The new FFS and APFS specific programs were designed and adapted at each site level by the FFS and APFS facilitators. Overall, the project focus areas included: CCA, ecosystem resilience (agrosystem and pasture), nutrition, etc. These training programs are intended for master trainers who are responsible for training FFS

and APFS facilitators. Based on the new programs, technical CCA sheets have been prepared and translated into three local languages (Wolof, Serer, Pular) and are intended for facilitators in charge of training farmers and agropastoralists at FFS and APFS. The guide on nutrition has been used and technical sheets have been drafted on the integration of nutrition in FFS/APFS.

75. In addition, the CSE, ANACIM and FAO jointly produced a collection of 63 good CCA practices in 2017, intended for the training of FFS and APFS facilitators. The collection is made up of technical sheets, divided into three themes: natural resource management and biodiversity restoration (12 good practices); improvement of agricultural production systems (39 good practices); and improvement of animal production (12 good practices). The good practices for improving agricultural production systems focus on mulching, zaï, improved fallows, composting, hedges, field windbreaks, crop protection with biological products, grafting techniques for fruit trees, crop associations, techniques for growing vegetables, cereals, fruit, and legumes, and storage and conservation of cereals. Good practices for improving animal production include silage, treatment of straw with urea, multinutrient blocks, cowpea fodder, cattle and sheep fattening, rural poultry farming, beekeeping, processing and conservation of milk and dairy products, and maintenance and restoration of pastoral ponds. However, these themes do not really suit to the pastoral production system that is dominant in the Ferlo sylvopastoral zone. Good practices for natural resource management and biodiversity restoration are: village nurseries, wood production plantations, village groves, assisted natural regeneration, the protection of degraded ecological areas or areas threatened by degradation, the technique of extinguishing bush fires, the cross-drainage technique, stone cordons, etc. The technical sheets were translated into three local languages, printed and sent to the FFS and APFS facilitators, to serve as a guide in the facilitation of the said structures.

76. However, some shortcomings were noted in the training programs: i) the issue of pastoralism was greatly diluted or even absent compared to traditional intensive livestock practices (fattening, animal health, improvement of traditional poultry farming, fodder crops, etc.); ii) the programs were developed around practices (in terms of innovative technologies) and not around the targeted stakeholders in terms of priorities; iii) cross-cutting dimensions such as gender, people with disabilities and social protection were poorly taken into account in the revised programs. Furthermore, the evaluation noted limited dissemination of the programs and the guide on good CCA practices. Some stakeholders met in the field were unaware of the existence of these training materials, particularly project partners and technical services. Moreover, even if the programmes are intended for FFS and APFS master trainers, it would be important to share them with the facilitators, who, in addition to the technical sheets they have received, can always draw on them to improve their knowledge.

77. In conclusion, the evaluation rates the achievement of Output 2.1.1 as Moderately Satisfactory.

Output 2.1.2. Facilitators are trained in CCA practices and strategies, gender and nutrition issues.

78. The project trained facilitators out of the planned 500, a 104 percent completion. However, the target of 25 percent of women trained was not achieved, with only 14.5 percent of women trained. This is due to the insufficient number of women in the agricultural and rural advisory services. 367 and 156 facilitators were trained in FFS and APFS, respectively, and another 132 are producer relay facilitators. Similarly, the objective of training 90 facilitators was achieved and exceeded with a rate of 128 percent, corresponding to 116 facilitators trained. However, the training of ten new master trainers has not been achieved.

79. The facilitators trained are agricultural technicians/advisors from the government's support services (agriculture, livestock, water and forestry), officers from development projects and non-

governmental organization partners of the project, and facilitators from farmers' organizations. Through the training of facilitators and relay facilitators, the project has contributed to increasing the number and expertise of agricultural extension and advisory agents serving farmers and agropastoralists. During field interviews, facilitators and relay facilitators unanimously confirmed that they had acquired and improved their knowledge of CCA and of good agricultural and agropastoral practices. They said to have passed on new knowledge, and now feel better trained and valued in their advisory role.

80. However, the deployment of some facilitators outside the project intervention area and the recruitment of some of them by other structures has resulted in the lack of facilitators to set up and facilitate FFS and APFS in many sites from 2017 to 2019. To fill this gap, the project opted to train as relay facilitators farmers and agropastoralists who are members of farmers' organizations in the areas where FFS and APFS have been set up. This option, although taken late (January 2020), has proven to be relevant and useful. Indeed, in the field, local facilitators have proven to be much more involved and available to ensure the extension and facilitation of FFS and APFS than government agents. They have demonstrated good learning and facilitation capacities for FFS and APFS. Their geographical and sociological proximity to beneficiaries, their commitment and the highly rewarding perception they have of their new role as advisors are among the positive factors of effectiveness. In addition, these local facilitators are less expensive than government facilitating technicians or technicians from projects and non-governmental organizations. In addition, almost all of the local facilitators we met in the field committed to continue the training and facilitation of FFS and APFS after the end of the project, as they consider these advisory services to be part of their mission for the benefit of the farmers and agropastoralists who are members of their farmers' organizations. This approach of training relay producer-facilitators demonstrates the relevance of the decentralization of agricultural advisory services as well as the empowerment of farmers, agropastoralists and their organizations in addressing the concerns of their members. On the other hand, problems encountered in certain aspects of the approach, such as the baseline study, the agroecosystem analysis or the pastoral ecosystem analysis, the design of the experimental set-up and reporting, are among the weak points that need to be improved through facilitators' support, continued capacity building and close monitoring. To remedy this, the project has supported facilitating technicians (government technical agents) to help them in their weak points to continuously and concretely strengthen their capacities.

81. In addition, the evaluation noted a time lag between the finalisation of revised training programs and technical sheets and the start of the first training cycles for FFS and APFS facilitators. The project remedied this gap by organising several training sessions for former and new facilitators as well as relay facilitators. There is therefore a lack of conformity and consistency with the intervention logic defined in the Project document. The Project Document clearly stated that the training of facilitators would use the training programs developed and based on CCA, which in turn would be derived from diagnostic and good CCA practice identification studies. This gap is due to administrative delays in signing MOUs and in validating and publishing the programmes. In addition, the training of facilitators is necessary but not sufficient to guarantee a good CCA mastery and integration. The training of facilitators and relay facilitators on CCA should be continued and strengthened. Indeed, interviews in the field revealed that some facilitators have not yet fully assimilated the CCA issue and are focusing more on topics related to technical production itineraries and integrated pest management. As a result, the project was forced to call on other specialists to address special CCA topics.

82. Finally, the evaluation also noted that the directors of technical services (agriculture, livestock, water and forestry), the directors or experts of non-governmental organizations and projects have not been raised awareness or trained on the farmer field school methodology, even though they

are supposed to supervise the trained technicians after the project ends. The evaluation considers this to be a loss for the project in terms of the sustainability of FFS and APFS achievements and their institutionalisation. As the project moves forward to institutionalize FFS and APFS, it is necessary to raise awareness or ensure the upgrading of the representatives of the regional and national technical services in charge of agriculture, livestock, forestry and the environment on the FFS and APFS methodology.

83. With regard to all these aspects, the evaluation rates the achievement of Output 2.1.2 as Satisfactory.

Output 2.1.3. Field Schools are established or strengthened to integrate CCA practices into production systems and training of farmers.

84. In total, 560 field schools (410 FFS and 150 APFS) have been set up, out of the initially planned 1 250, i.e. a 45 percent completion rate. The mid-term review recommended that this initial objective be lowered by 25 percent, resulting in a revised target of 937. Against this revised target, the achievement rate is thus 60 percent. A total of 12 576 farmers and agropastoralists (including 8 376 at the FFS level and 4 200 at the APFS level) have been training, out of an initial target of 25 000 farmers and agropastoralists, i.e. an achievement rate of 50 percent. The number of women trained is 7 335, or 58 percent. These data are taken from partner reports and the 2020 Project Implementation Report. However, the project does not have databases on achievements.

85. The FFS and APFS set up by the project have provided a local support system for local agricultural advice in the beneficiary villages, based on rural facilitators and local relay facilitators. The various comparative practices, experiments and good practices disseminated have enabled farmers and herders to improve, consolidate and diversify their knowledge, and to demonstrate the importance of good agrosylvopastoral practices and technologies and their impact and effectiveness on improving agricultural and animal productivity. The farmers and agropastoralists interviewed appreciated the new knowledge and technologies learned, the methodological approaches used in the learning process, the exchanges and discussions at the level of FFS and APFS, as well as the social cohesion that these have generated, even though they do not always apply the techniques learned, as explained above.

86. For example, in Mbayène village in the municipality of Djilor, the experiments conducted by the women led them to the conclusion that the best method of fertilising maize is organic manure and compost, which can be found locally or made locally without major investment, as opposed to chemical fertiliser, which is very expensive and often unavailable locally. They also concluded that neem leaf treatment is the best method of phytosanitary treatment for vegetable crops. This same observation is valid in Kouthia Farindella peulh, where organic cotton producers have understood that the use of organic manure and preventive treatment against cotton pests contribute significantly to the improvement of cotton yields. In the Kayemore zone, farmers have integrated new millet varieties (short-cycle Souna 3) and cultivation techniques (sowing density, thinning, use of organic manure). In the sylvopastoral zone, agropastoralists noted a clear difference with the new practices of cattle and sheep fattening and improved village poultry farming. They appreciated the knowledge gained and the importance of straw treatment with urea for sheep growth, fodder crops with neema, mulching for cabbage yield, nutrient blocks for livestock feed, traditional cheese processing and preservation techniques, and good farming practices for okra, tomato, eggplant and chili pepper.

87. On the other hand, various constraints and difficulties have hampered the establishment and facilitation of FFS and APFS and reduced the quality of the learning and benefits derived from them. Most FFS/APFS were set up late and some of them only operated for one year with many

difficulties, due to slow FAO procedures for acquiring inputs/equipment, animal raiding, decrease in number of facilitators, etc. At the level of the first generation of field schools, administrative bottlenecks at the FAO level did not facilitate the acquisition of inputs and didactic equipment in the flexible conditions required for learning in a field school; as a result, the testing of innovations and good practices was often not carried out in optimal conditions. The absence of fences in FFS/APFS caused the destruction of crops, especially in the dry season, resulting in the early termination of learning in FFS and APFS. Teaching materials during the implementation of activities were sometimes unavailable, particularly for associated APFS, due to the slow FAO procedures. Schedule conflicts were noted for some experts involved in facilitating sessions, leading to rescheduling of modules to other sessions. The facilitation mechanism made up of technicians for the first phase was also unstable. Indeed, some partner technical structures had to assign facilitator technicians who were working outside the project area and other technicians found more lucrative positions elsewhere, within the framework of other projects. In addition to these elements, infrastructure and support equipment (irrigation network, water points) were installed late. Irregularities and inadequate monitoring and supervision have also been observed in the implementation of FFS and APFS facilitation by FAO and the National Network of Facilitators of Senegal (RNFS)/Integrated Production and Pest Management (IPPM). Initially, joint missions were organised in the first two years, but they did not continue in the third year. The delay in payment by FAO of facilitators' allowances led to the demotivation of some facilitators. The RNFS/IPPM MOU ended, without being renewed, while most FFS and APFS were not yet in place. The application of FFS and APFS achievements at the community level remains limited and unquantifiable due to the absence of monitoring and evaluation tools, geo-referenced data and a database. In their application, APFS give little emphasis to the pastoralist dimension, in favour of sedentary livestock improvement themes. The baseline diagnostic study does not analyse the issue of pastoralism, and APFS training programs focus on technologies rather than the pastoral system. Other partners such as the National Agro-Sylvo-Pastoral Development Fund (FNDASP), PRAPS and P2RS have set up FFS without consultation and coordination, monitoring and harmonisation.

88. In conclusion, the evaluation team rates the achievement of Output 2.1.3 as Moderately Satisfactory.

Output 2.1.4. Dimitra Listeners' clubs (Dimitra clubs) are established and empowered to allow networking of field schools.

89. The project established 503 Dimitra clubs[4] out of the 400 planned, for a 125 percent completion rate. Dimitra clubs have 15 000 members, mostly women and youth, and are located in 142 villages in 11 municipalities. The project has built stakeholder capacity through participatory and inclusive launch workshops, awareness raising, training, and coaching for the PCU, implementing partners, administrative authorities, and local communities. The project also trained 28 facilitators (50 percent of whom are women) for Dimitra clubs and radio animators on group dynamics, the creation, monitoring and support of Dimitra clubs, and monitoring and evaluation tools. Practical training was also provided to Dimitra club leaders on group management, participatory communication and gender. Equipment such as solar radios and smartphones were made available to them. Support was also provided for the development and use of management tools (membership and contribution forms, internal regulations).

[4] Dimitra clubs (Dimitra Listening Club) are groups of women, men or young people – mixed or not – who decide to organise themselves to act together on their own environment. They meet regularly to discuss about the problems they face in their daily lives, to make decisions and to take action to solve them.

90. Overall, the clubs function properly with the support of a facilitator and there is a good appropriation by the beneficiaries. These Dimitra clubs allow the populations of the villages where they are located to organise themselves and to try to find collective solutions to the problems that concern them. They have mainly contributed to social cohesion at the village level, by creating, strengthening and rehabilitating social spaces for consultation and by mobilising stakeholders around village development issues (village sanitation, socioeconomic infrastructure, solidarity credit, literacy, market gardening, access to seeds and other agricultural inputs, fight against abusive tree cutting, youth unemployment, etc.). In order to address these concerns, community funds are also set up to mobilise financial resources at the local level. In addition to solving identified community problems, these funds also provide villages with a more accessible line of credit with more advantageous conditions for the population than traditional financing systems (banks and decentralized financial systems) or the use of loan sharks, which are especially present in the central zone (groundnut basin).

91. In some localities, the strategic alliance between Dimitra clubs and FFS/APFS was voluntary on the part of stakeholders. For example, Dimitra clubs: i) helped raise awareness and select members during the preparatory phase of FFS/APFS; ii) supported the awareness-raising and mobilisation of FFS/APFS members during implementation; iii) served as platforms for sharing information and disseminating FFS/APFS processes and results; and iv) animated themes on their partner community radios. Several testimonies from communities illustrate the importance of Dimitra clubs (see Box 1).

Box 1. Testimonies of Club Dimitra beneficiaries

A prominent person from the village of Thièl emphasises that "the greatest advantage of the Dimitra clubs is the intra- and inter-generational exchange and consultation on the internal problems of the village and the implementation of endogenous solutions, whereas in the recent past, certain individuals or families did not speak to each other and/or did not frequent the same exchange spaces. A young person from the same village says: "At night under the stars, we used to spend time quarrelling and arguing over trivialities, but thanks to our Dimitra youth club and to the training and awareness raising we have received, we now discuss the socioeconomic and cultural issues that concern us, participate in exchanges in the village and mobilise our labour force for community work in the village. Conflicts have decreased and are settled amicably among us without the intervention of adults and elderly people". A woman from the same village said: "In traditional Alpulaar culture, women did not sit with men to dialogue together. Thanks to the Dimitra clubs, even the most sensitive issues (early marriage, female genital mutilation) are discussed by men and women in the same spaces. In the village of Kouthia Farindella peulh, a woman confided this to us: "Even if the project ends, we will continue with our Dimitra and VSLA clubs to solve our daily problems without asking for external help". During the outbreak of COVID-19, Dimitra clubs were used to educate members and villagers about the recommended barrier measures.

Source: Elaborated by the evaluation team.

92. However, while Dimitra clubs appear to be good tools for participatory endogenous development, there are still areas for improvement. The primary purpose of Dimitra clubs within the project was to support the development of FFS/APFS, but this was only the case where clubs coexisted with FFS/APFS, and not for all FFS/APFS that were established. While many clubs serve as a framework for sharing and discussing the lessons learned in the field schools or the results of the various studies conducted during project implementation, the fact that they operate independently and that their members freely identify and discuss issues of concern to them and to which they want to find solutions, completely dissociates them from the field schools in some villages. The project lacked specific action plans to facilitate the integration of Dimitra clubs into FFS and APFS.

93. As mentioned earlier, the evaluation noted that Dimitra clubs were systematically established in all villages where FFS and APFS had been set up. In fact, in the sylvopastoral zone, Dimitra clubs have been installed exclusively in the department of Linguère, to the detriment of the department

of Ranérou, despite the strong demand expressed by the populations of this area. The project followed the choice of the implementing partner who identified and oriented the establishment of Dimitra clubs in the department of Linguère. There was a lack of guidance from the PCU to inform the choice of the partner and lead it to take into account the needs of the populations and the need to promote the strategic alliance that would justify the installation of Dimitra clubs in the department of Ranérou next to APFS that have been set up there.

94. The inclusion of people with disabilities in Dimitra clubs is a major shortcoming of the project. There is no training or content for the inclusion of people with disabilities. The evaluation also noted the absence of indicators, self-assessment tools, and self-capitalisation of Dimitra clubs' results. The only actions carried out were the village forums. In addition, there is a great deal of information loss, as partner reports do not provide sufficient data on the clubs' results, constraints, and challenges. Besides, Dimitra clubs did not function in some municipalities of the Tambacounda region and were therefore abolished (20 clubs) by the National Federation of Cotton Producers. The inactivity of these Dimitra clubs is due, according to the National Federation of Cotton Producers, to the lack of training of club leaders. The evaluation also noted that Dimitra clubs run by men are more unstable than those run by women; this is due to their occupation with field work during the rainy season, the rural exodus of young men at the end of the rainy season, and a lack of interest in some cases. The Dimitra club networks made up of village leaders were established late. The networks are not yet functional and do not have an action plan for seeking financial resources for their operation.

95. Moreover, in the Nioro area, it was worth noting the lack of integration of Dimitra clubs into previously existing local consultation instruments (such as *Keppars* and *Pencs*). A *Keppar* means the shade of the hut where the population of the village meets to discuss. A *Keppar* brings together all categories of stakeholders in the village to discuss about a specific problem in order to find solutions. Above the *Keppar* is the *Penc*, which means palaver tree. Thus, the *Keppar* is an assembly at the village level, while the *Penc* is an assembly at the municipal level in the context of the implementation of Act 3 of decentralization. The third concept is the "*interpenc*" at the higher level. The non-governmental organization Symbiose has set up 247 *keppars* in 15 municipalities and two municipalities in Fatick. At the beginning (2004), the facilitation of the *Pencs* helped the populations to value their time, to discuss problems and to look for solutions. The coexistence of Dimitra clubs, *Pencs* and *Keppars* has led to the stifling of Dimitra clubs by *Pencs* and *Keppars* and vice versa in some villages. Although Dimitra clubs are complementary to *Pencs* and *Keppars* because they are made up of homogeneous groups, strategic reflections should be conducted by the stakeholders (FAO, the non-governmental organization Symbiose, members of the Dimitra clubs, CEP) to develop synergies and strengthen the complementarity between these two platforms in order to enrich community exchanges and discussions and to find solutions to development problems at the village level.

96. The achievement of this output is rated as Moderately Satisfactory.

3.2.1.1 Caisses de résilience: Village Savings and Loan Association

97. Though it was introduced late by the project, the VSLA funds were successful as a financial pillar to strengthen and consolidate the technical pillar (FFS/APFS), the social pillar (Dimitra club) and the economic pillar (climate resilience fund). These three pillars support each other. The project has strengthened the capacities of the facilitators on the methodology of setting up and facilitating VSLAs and supported the members with equipment and management tools (cash boxes, pens, calculators, membership forms, contribution forms, internal rules). Several VSLA funds have been created and are mostly made up of women. Unlike the traditional tontines, VSLAs operate on a transparent basis and benefit from the advice of facilitators. One of the factors of

transparency is the fact that "the fund is always open in the presence of everyone and everyone has their membership and contribution card." VSLA funds have not only facilitated or reinforced access to credit for all at the village level to meet their socioeconomic needs but also contributed to solidarity among members through meetings and discussions. In the Koussanar area, the women beneficiaries say: "after sharing the money, VSLA funds allow us to invest in income-generating activities (sheep fattening, small businesses, etc.), to buy agricultural inputs, to acquire mattresses, clothes, to have access to medicines and health care, to take care of our children's schooling and purchase foodstuffs, etc.

98. VSLA funds were associated with Dimitra clubs and the facilitators of the latter also ensured the facilitation of the former. This association between VSLA funds and Dimitra clubs had a negative influence on the philosophy and the functioning of the clubs. Actually, their members spent more time on membership fees and financial management to the detriment of exchanges on development issues. It is also important to note the lack of harmonisation and synergy of VSLA funds set up by several partners (FAO, World Vision, Tostan, HEIFER, etc.). This has led to a proliferation of VSLA funds to the detriment of the leverage effects for a greater impact on the beneficiaries. In some villages, there are up to seven VSLA funds through five different partners.

Output 2.1.5. Good practices and lessons learned for better adaptation to climate risks are capitalized on and disseminated at the local level.

99. Within the framework of a partnership with FAO, the National Agency for Agricultural and Rural Council (ANCAR) is in charge of supporting farmers' organizations in each agroecological zone to select 25 good CCA practices (five per zone). After selection, these good practices were to be integrated into the training programs of FFS and APFS, while ANCAR was to support their dissemination at the local level through information and awareness raising, develop advice sheets on these good practices, and provide advisory support. ANCAR's 2019 activity report indicates that 25 good CCA practices were selected from 48 farmers' organizations in five agroecological zones without indicating the list of good practices involved. However, the evaluation considers that it is not relevant to conduct another analysis and selection of good CCA practices by ANCAR, as similar work has already been done by CSE, ANACIM and FAO, which jointly produced a compendium of good practices in 2017. ANCAR's activities should be focused on disseminating and training farm advisors and farmers on good CCA practices, rather than mobilising resources to do the same work. The same report emphasizes that good CCA practices were disseminated through six radio programs and advice sheets. However, it should be noted that the number of radio programs produced was not enough (six out of 20 products) and that the preparation of monitoring sheets was not followed by training activities for farmers on good CCA practices. The MOU ended before these essential activities could be carried out, while the proposed MOU amendment was not approved. Therefore, the evaluation concludes that the capitalisation and dissemination of good CCA practices were a failure. This outcome is therefore rated as Moderately Satisfactory.

Effect 2.2. Increased household incomes and agricultural and pastoral productivity of the participants in the field schools, thanks to the use of CCA practices and agrometeorological information and to the improvement of the value chains of agricultural and livestock products.

100. Under Effect 2.2, the project aimed at increasing household incomes and the productivity of participants in FFS and APFS. The project chose to use the increase in household income as a performance indicator (with a target of 20 percent over the average baseline income value and 30 percent of developed agrosylvopastoral projects having integrated climate change adaptation components into their budgets).

101. Field observations as well as interviews with various beneficiaries showed that the project set up FFS and APFS, the majority of which included farmer members of beneficiary groups, with each group having 30 to 50 members. In these FFS and APFS, the project undertook to popularize improved production techniques by providing the groups with inputs for one to two production seasons (depending on the zone), small production equipment and technical support through facilitators. The project did not systematically monitor the production data of FFS and APFS, nor did it follow up on the farmers' plots after their training in FFS and APFS. It is therefore difficult to know exactly what the yields are on these plots outside of FFS and APFS.

102. In the field, the majority of participants in FFS and APFS said they were convinced of the usefulness of the technologies promoted. As FFS and APFS had just been closed or were still active at the time of the evaluators' visit, it is possible to conclude with certainty that the project's actions cannot directly justify the increase in productivity or income at the level of individual farmers' plots.

103. In conclusion, the evaluation rates the achievement of Effect 2.2 as Moderately Unsatisfactory.

Output 2.2.1. Agrosylvopastoralist organizations are strengthened through the adoption of new CCA technologies and innovations as well as improved production and value chains.

104. Under Output 2.2.1, the project aimed at strengthening agrosylvopastoralist organizations through the adoption of new technologies and innovations and at supporting farmers' organizations in drafting development plans that include CCA priorities and access to local financing and warrantage as a practice that allows access to financing.

105. Within the framework of the MOU with ANCAR, 60 farmers' organizations were supported in the development of action plans integrating CCA and 210 farmers' organization members were trained on good CCA practices (market gardening techniques, cattle fattening), organizational dynamics and financial management. In the area of access to financing and financial products, farmers' organizations were made aware of financial service offers and procedures and participated in meetings to establish contact with financing institutions such as the agricultural bank, the Crédit Mutuel du Sénégal and other microfinance institutions. However, the evaluation found no concrete evidence of warrantage being practised by at least one farmer organization as a tool for accessing finance, as envisaged in the Project Document. As concerns the communication component, six radio programs out of the 60 planned were carried out with national and community radio stations. Despite this capacity support, mobilising resources for the implementation of the action plans developed remains the major constraint of farmers' organizations, for which the project has not provided any solutions. Linking farmers' organizations with financing institutions and training in financial literacy is not enough to guarantee resource mobilisation. However, the project has financed sub-projects carried out by selected farmers' organizations in the framework of the climate resilience fund. Yet, there is a disconnect and a gap between the sub-projects and the action plans of farmers' organizations. Indeed, ANCAR and the National Agrosylvopastoral Development Fund, which are respectively responsible for developing action plans and implementing the climate resilience fund, have not worked in synergy to harmonize their interventions. The sub-projects were selected prior to the development of the farmers' organizations' action plans.

106. The project has supported the development of many IGAs, including the production of multinutrient blocks, market gardening, poultry farming, cattle and sheep fattening, and the marketing of livestock feed, etc. However, some constraints limit the success of IGAs: access to inputs and equipment, securing market gardening plots, water control, access to livestock feed, access to seeds, etc. Due to the lack of a database, it is not possible to verify the indicator relating

to 50 vulnerable households on IGA development. With regard to the target "50 percent of farmers and herders adopt at least one CCA option recommended in field schools", the findings highlighted under Effect 2.1 remain valid.

107. Based on these aspects, the evaluation rates the level of achievement of this output as Moderately Satisfactory.

Output 2.2.2. At least one farmer per field school multiplies and markets climate change-adapted seeds with high nutritional value.

108. The multiplication or production of pre-basic and basic climate change-adapted seeds with high nutritional value were implemented within the framework of the MOU with ANCAR. Within this framework, the project aimed at: i) producing pre-basic seeds on fields of millet (3 ha), sorghum (2 ha), cowpea (3 ha), groundnut (5 ha), maize (4 ha), sesame (3 ha), ii) producing basic and certified seeds without indicating the quantities to be produced; and iii) building or rehabilitating two seed storage warehouses. To achieve these results, the project signed an MOU with ANCAR, whose objectives were to: accompany farmers' organizations in ordering seeds, raise awareness among farmers' organizations on seed legislation, support and strengthen monitoring and control in the field; produce documentary materials based on seed catalogues, guides and technical sheets translated into local languages and made available to farmers' organizations to enable them to master the seed production and certification process; build the capacity of seed producers on production planning and marketing. In terms of implementation, ANCAR selected 18 farmers' organizations in the groundnut basin and the Eastern Senegal and Upper Casamance areas to conduct the basic and certified seed production programme. The members of the farmers' organizations were trained on seed legislation, planning and techniques for seed production and marketing.

109. The seed production programme experienced difficulties and did not achieve the expected results. In the municipality of Kaymor, seed production was limited to the Jappo farmers' organization, for a total of 2.03 had of millet; groundnut seed was not planted and corn did not germinate. As a result, corn was replaced by bio-fertile millet, which unfortunately is not yet registered in Senegal. In the municipality of Ida Mouride and Kahi, the selected and trained farmers' organizations have not received approval for seed production. In the municipality of Djilor, the selected farmers' organizations have not received any seeds. Thus, in the groundnut basin area, only four of the nine selected farmers' organizations were able to collect and condition their seeds. The overall quantity of certified seed collected was 9.24 tonnes while the quantities of registered and conditioned seeds were 8.24 tonnes and 3 tonnes respectively. In the Eastern Senegal area, 1.5 tonnes of Nerica 4 rice varieties and 1.5 tonnes of Thai early corn were produced but not yet certified at the time of the evaluation. During the discussions, farmers' organizations had not yet made a decision on the use of these seeds (marketing or distribution). In addition, training on seed marketing had not taken place and, similarly, the construction or rehabilitation of two seed storage warehouses had not been completed. According to ANCAR, this poor performance in seed production is due to the late transfer of funds by FAO, the late delivery of seeds and inputs, and the lack of certification of some farmers' organizations. To remedy these shortcomings, an amendment to the MOU was prepared and submitted to FAO Headquarters for approval, but this amendment has not been signed and ANCAR is still waiting for an official response from FAO.

110. In conclusion, the evaluation team rates the achievement of Output 2.2.2 as Moderately Unsatisfactory.

Output 2.2.3. New adapted varieties of cereals, fruits and vegetables and fodder species are introduced in the intervention areas to improve the food and nutrition security of the population.

111. Under Output 2.2.3, the project aimed at introducing new adapted varieties of cereals and fruits and vegetables in the intervention areas in order to improve the nutritional status of the populations. After field visits and interviews with stakeholders, it was found that inputs were distributed to farmers working in FFS and APFS for demonstration purposes. The beneficiaries interviewed confirmed the importance of these agricultural inputs such as seeds. Indeed, some varieties received produced a significant yield differential when the production method adopted the recommended practices. Fodder cowpea and early sorghum varieties have been introduced in some areas. The promotion of fodder production is also underway through APFS and integrated farms are financed by the climate resilience fund. There is no system of multiplication and supply of these varieties at the local level to ensure their availability.

112. The achievement of this output is rated as Moderately Satisfactory.

Output 2.2.4. Land-use plans and management plans for grazing areas and livestock rangelands are strengthened with the participation of farmers' and pastoralists' associations and local authorities.

113. The project also supported a characterisation study of thirteen pastoral units in the Ferlo sylvopastoral zone (carried out by the Ecological Monitoring Centre, in 2017). The study on the characterisation of pastoral units provided stakeholders (agropastoralists, management structures) with relevant and updated information and knowledge on the state of resources and pastoral space. The study also highlighted the training and information needs of agropastoralists, including access to agroclimatic information, literacy, milk production and processing techniques, animal health management, fattening techniques, as well as the management of natural resources and pastoral infrastructure. The project had initially planned to finance the implementation of management plans and land use plans, but the funding of this activity did not take place and was reoriented. Actually, this activity was carried out by other projects and partners (PASA LouMaKaf, PRAPS, AVSF), which developed and supported the implementation of management plans and land use plans at the level of pastoral units.

114. Thus, the collaboration between the Food Security Support Project and AVSF, encouraged by FAO, has enabled the pooling of resources to strengthen support to pastoral units. Indeed, AVSF provided the Food Security Support Project with technicians and facilitators to cover areas that were in need of the latter, while the Food Security Project provided means of transport (motorbikes). The Food Security Support Project/LouMaKaf also provided equipment for the pastoral warning and information system in the Ferlo, set up by AVSF, enabling it to extend its coverage to 30 pastoral units, including eight municipalities covered by the project. This enabled agropastoralists, technical services and local authorities to access various information on rainfall, bush fires, pastures, water points and bores, animal health and early livestock market prices to improve their functioning. However, following the end of the MOU, the operation of the pastoral warning and information system in the Ferlo stopped and agropastoralists no longer receive information as they did under the evaluated project.

115. In conclusion, the evaluation rates the achievement of this output as Satisfactory.

Effect 3.1. Mainstreaming of the CCA dimension into national policies, strategies and programs, moving from a reactive response to a proactive approach.

116. The achievement of this effect is measured by the following two indicators: i) CCA strategies are integrated into at least 30 percent of agricultural, forestry and pastoral sectoral policies and programmes; and ii) at least 30 percent of agrosylvopastoral projects integrate CCA issues into their budgets (LDCF AMAT Indicator 1.1.1.2).

117. The project has informed, raised awareness among and trained institutional and sectoral stakeholders in the national directorates on the integration of CCA into agricultural, forestry and pastoral sectoral policies and programmes. Despite these efforts, the project has not succeeded in integrating CCA into the National Plan for Agricultural Investment and Food and Nutrition Security, which was being developed. The evaluation also found no evidence of CCA integration into at least 30 percent of agrosylvopastoral project budgets. Whereas, at the local level, the project has significantly contributed to the development of the local planning and budgeting guide, which integrates four dimensions: climate change, migration, gender and nutrition (See Output 3.1.1). The guide has been tested in three municipalities, capitalized on and disseminated nationally, and is endorsed by the relevant ministries. This is an important result as the guide is adopted by the ministry in charge of local authorities and serves as a planning tool for local authorities in the preparation of their municipal investment plans. The process has been successful with the participation of all stakeholders and will facilitate the activities of the National Committee on Climate Change in terms of cross-sectoral coordination, planning, guidance, monitoring of the Paris Climate Agreement commitments. The project also supported the regional climate change committees in Matam and Louga to develop CCA action plans. It also supported the reform of the National Committee on Climate Change, whose decree is currently being validated.

118. In conclusion, the evaluation rates the achievement of Effect 3.1 as Moderately Satisfactory.

Output 3.1.1. Awareness modules for decision makers have been developed and institutional capacities have been strengthened to integrate CCA into policies, programs and projects, based on the school-field approach.

119. Various capacity support, mechanisms and platforms have been implemented at different levels to ensure CCA integration into sectoral and municipal development policies, but the results remain mixed. To achieve this product, the project signed a MOU with the Directorate of Environment and Classified Establishments (DECC) of the Ministry in charge of Environment and Sustainable Development. The project – carried out in collaboration with the support for national climate change adaptation plans in French-speaking sub-Saharan Africa of GIZ (German Cooperation) and the Decentralising Climate Fund project of the NGO Innovations Environnement Développement (IED) Afrique – co-financed training sessions on CCA integration into national and local public policies, for the benefit of stakeholders of the Development and Territorial Planning Commission of the National Assembly and of the High Council of Local Authorities, members of the Parliamentary Network for Environmental Protection in Senegal, and members of the Economic and Social Environmental Council. The training has aroused much interest among national and local elected officials who have undertaken to advocate and lobby for better integration of climate change financing into national and local budgets, while requesting to benefit from further capacity building sessions. In addition, IED Afrique, in collaboration with FAO and other stakeholders, organized a regional conference on the theme *"Climate change and territorial resilience: what responses in West Africa?"*. This conference is the first regional forum on climate resilience in the Kaffrine region.

120. In the regions of Matam, Louga and Kaffrine, the project co-financed capacity building on CCA integration into local development planning and budgeting for representatives of the territorial and local administration (governors, prefects, sub-prefects, mayors, local elected officials) and technical services (directors of regional development agencies, heads of the regional environmental division, regional directorates of agriculture, livestock, fisheries, etc.) and representatives of non-governmental organizations, projects and programmes. The project also produced and disseminated two policy papers, video films on CCA and animated the website of the National Committee on Climate Change and social media, to raise awareness among national stakeholders on CCA integration into public policies.

121. The project also contributed to the capacity building of Senegalese experts members of the African negotiators group on climate change, by financially supporting the organization of: i) two training workshops on gender and climate change and on the implications of the Koronivia Joint Action for agriculture; ii) several meetings of the Francophone group in Africa; and iii) various pre-sessional and inter-sessional meetings for the preparation of African positions at the Conferences of the Parties and the subsidiary bodies.

122. The project has developed a first version of a multistakeholder consultation platform on climate resilience, but this has not yet been finalized and disseminated to all stakeholders, nor has the animation of the platform begun. As a result, participatory workshops have not yet been organized with decision-makers, institutional stakeholders and representatives of farmers' organizations to share community needs and identify CCA measures to be included in policies, programmes and projects. In the MOU with the National Agro-Sylvo Pastoral Development Fund (FNDASP), a four-year annual action plan was developed for the operation and management of the platform. Immediately thereafter, the project, in partnership with FNDASP, paved the way for the institutionalisation of FFS/APFS in the agricultural research-training-advisory continuum. Recently, a workshop bringing together universities, research institutes, agricultural and rural training centres and offices, was held in this regard. FNDASP has the prerequisites to ensure the continuity and sustainability of the process given that the Ministry of Agriculture and Rural Equipment has entrusted it with the financing programme for research, development and technology dissemination within the framework of the World Bank's P4R programme.

123. The Ministry of Agriculture and Rural Equipment has officially entrusted ANCAR with the prerogative of making Farmer Field Schools a basic lever of extension/advisory methods. A technical cooperation programme was implemented to carry out a diagnostic study of agricultural advice and to examine the possibilities of internalising FFS/APFS in the agricultural and rural advisory system. However, the internalisation of the FFS/APFS approach in agricultural and rural advisory services is necessary but not sufficient to guarantee its implementation, especially in the absence of a support programme, given ANCAR's budgetary constraints. Hence the need for ANCAR to work on mobilising resources to fund a programme to support this process.

124. In collaboration with the National Programme for Local Development, the International Organization for Migration, the Malnutrition Control Unit, the Gender Directorate, the non-governmental organization IED Afrique, the Directorate of the Environment and Classified Establishments, regional stakeholders and local authorities, the project supported the process of developing a guide for planning and budgeting local development that integrates four dimensions: climate change, gender, nutrition and migration. Within this framework, a multistakeholder technical committee was set up and composed of representatives of the territorial and local administration (governors, prefects, sub-prefects, mayors, local elected officials) and technical services (directors of regional development agencies, heads of the regional environmental division, regional directorates of agriculture, livestock, fisheries, etc.). This guide was tested in the process of drawing up development plans for three municipalities in the Kaffrine region. The results obtained were evaluated, capitalized on and disseminated at the local and national levels. The guide was validated at the national level and approved by the ministry in charge of local authorities and territorial planning as a reference tool for the drafting of local development plans. Currently, the guide is being used by several local authorities in the updating or drafting of their municipal development plans. According to the project team, the International Organization for Migration and the Malnutrition Control Unit use the local development planning guide to assist their partner local authorities in drawing up their municipal development plans.

125. The level of achievement of Output 3.1.1 is rated as Satisfactory.

Output 3.1.2. A high-level cross-sectoral group is set up in order to define and adopt the CCA and resilience action plan to be integrated into policies, programs and projects.

126. To revitalize and relaunch the policy dialogue on climate change at the national and regional levels, the project supported the strengthening of the National Committee on Climate Change (COMNACC)[5] and the Regional Committees on Climate Change (COMRECC).[6] The project supported the revitalisation of COMNACC, through a participatory and inclusive approach led by the Secretary General of the ministry in charge of the environment and sustainable development with the support of a multistakeholder technical committee. Within this framework, the project supported: i) the completion and validation of a diagnostic study to identify the strengths, weaknesses, obstacles and opportunities of COMNACC in charge of policy dialogue and intersectoral coordination in the institutional governance of climate change; and ii) the reform process of COMNACC through the elaboration, modification and validation of the draft reform decree, the statutes and the manual of procedures of COMNACC. Despite these efforts, the draft decree on the reform of COMNACC has still not been signed by the ministry in charge of the environment and sustainable development, due to administrative bottlenecks and delays.

127. At the regional level, the project has revived COMRECCs, which had remained inactive since their creation, through capacity building, the revision and signing of COMRECC creation decrees by governors, and the development of their action plans. However, this support has only benefited COMRECCs in the regions of Matam and Louga, unlike those in the regions of Fatick and Tambacounda, due to planning constraints related to COVID-19. COMRECCs in the Matam and Louga regions that benefited from the project's support are functional and hold regular meetings. However, they are experiencing difficulties in mobilising financial resources for the implementation of their action plans. To overcome this challenge, the project has co-financed, in collaboration with Project GCP/GLO/921/GQC "Strengthening National Adaptation Planning Capacities for Food Security and Nutrition", a training session on project design to ease access to green funds for COMRECC members.

128. In addition to this capacity building, FAO financed the participation of two expert members from the COMRECCs of Louga and Matam in the Conferences of the Parties 23 and 24. These FAO supports seem to be well received by the COMRECC members interviewed and have produced transformative results that can be seen through the revitalisation of COMRECCs – which were in a lethargic state (see Box 2). Indeed, governors of regions adopted new decrees on COMRECCs set up, the elaboration and validation of annual action plans and the implementation of endogenous initiatives. The case of the Louga COMRECC described in Box 2 provides a perfect illustration. At the national level, COMNACC has been strengthened through its revised legal framework. The draft decree (not yet signed, as earlier mentioned) and related texts were designed through an inclusive process and are currently being validated by the Minister of the Environment and Sustainable Development. In addition, stakeholders have been strengthened in terms of understanding challenges.

129. The level of achievement of Output 3.1.2 is rated as Satisfactory (as illustrated in Box 2).

[5] COMNACC was created by Decree No. 2011-1689 of 3 October 2011 to ensure the coordination, monitoring and evaluation of actions implemented to address climate disruption and deal with the resulting problems in light of the magnitude of climate change and its impacts on the global and national economy.

[6] COMRECCs are the branches of COMNACC in the 14 regions of the country. The establishment of COMRECCs is part of the desire to extend the policy dialogue on climate change to the decentralized level.

Box 2. Revitalisation of the Louga Regional Committee on Climate Change

The COMRECC of Louga is revitalising and developing endogenous initiatives, following FAO support

The COMRECC of the Louga region was created in 2012 by Order No. 1 of 5 January 2012. However, since its creation, the Louga COMRECC has experienced difficulties in its functioning, like those of other regions: few meetings and lack of endogenous initiatives. To revive policy dialogue on climate change at the local level, through this COMRECC, FAO organised a capacity-building workshop for the members of the Louga COMRECC, from 10 to 14 July 2018. Before the end of the workshop, the Governor of the region signed Order No. 29 of 19 July 2018, modifying that of 5 January 2012 establishing the COMRECC of Louga. An annual action plan was also developed and approved by the members of the COMRECC. The latter meet regularly and develop endogenous initiatives. For example, the select committee organised a workshop at the regional level and in the three departments of the region to inform and raise awareness among the population, local authorities and farmers' organizations on the theme "Climate change and sustainable development: integrated approaches and development of a resilient peasant agriculture". In addition, this committee organised several meetings to prepare and develop two projects. The latter were submitted to the designated national authority for advice before transmission to the Green Climate Fund. One of the projects has been preselected for submission to the Green Climate Fund: "Integrated community agricultural farm project: adaptation and resilience of the populations of Louga for the fight against food insecurity and malnutrition".

Source: Elaborated by the evaluation team.

Effect 3.2. Establishment of a national climate change resilience fund within an existing financing mechanism to support climate change adaptation activities at the local level.

130. Under Effect 3.2, the project's objective was to provide funding from the climate resilience fund and double GEF contribution by the third year of project implementation. The project did establish the climate resilience fund. However, the doubling of the initial GEF contribution (doubling of the fund) is not yet effective.

131. Therefore, the evaluation rates the achievement of Effect 3.2 as Moderately Satisfactory.

Output 3.2.1. A national climate resilience fund is created through an open window at one of the existing funds.

132. The achievement of Output 3.2.1 is rated as Moderately Satisfactory. The climate resilience fund was set up with a delay and the doubling of the fund is not yet effective. A fund has been effectively set up in a window managed by the National Agro-Sylvo-pastoral Development Fund under the Memorandum of Understanding signed with FAO on 5 March 2019. The fund was replenished with XOF 403 594 100 in two instalments, on 5 July 2019 and 25 August 2020 respectively. The fund made it possible to finance ten agrosylvopastoral investment sub-projects for a total amount of XOF 367 589 225 for the benefit of ten rural farmers' organizations, spread across the seven project intervention regions (see Table 6). Ten financing agreements defining the modalities of management, disbursement, and use and justification of the funds, were signed between the National Agro-Sylvo-pastoral Development Fund and each beneficiary farmers' organization, in the presence of the administrative and territorial authorities. To date, the deposits made by the National Agro-Sylvo-pastoral Development Fund to the bank accounts opened by the farmers' organizations amount to XOF 344 115 050, i.e. a disbursement rate of 93 percent.

Table 6. Details of funding from the fund managed by the National Agro-Sylvo-Pastoral Development Fund for ten rural farmers' organizations

	Beneficiary farmers' organizations	Amount (XOF)	Municipality	Region
1	Economic interest group Belede	38 500 000	Oudalaye	Matam
2	Economic interest group Les Amazones	34 590 500	Barkedji	Louga
3	Economic interest group Pinal Bamtare Djoloff	37 623 775	Thiel	Louga
4	Association Diambar de Gueye	37 051 250	Ngohe	Diourrbel
5	Réseau des groupements de conservation *Farming*	40 000 000	Djilor	Fatick
6	Economic interest group Soukhali Mbaymi	40 000 000	Kaymor	Kaolack
7	Economic interest group Ndoucoumane	39 823 700	Kathiote	Kaffrine
8	Economic interest group Jeuf Diarougnou	20 000 000	Sagna	
9	Union secteurs et groupements de production de coton	40 000 000		Tamba
10	Economic interest group Djant Bi	40 000 000	Koulor	Tamba
Total		**367 589 225**		

Source: Elaborated by the Project Coordination Unit.

133. The operationalisation of the fund was conducted by the National Agro-Sylvo Pastoral Development Fund in a participatory and inclusive manner, which was appreciated by all the partners met in the field and led to an original architecture based on a good institutional anchoring of support, coordination and monitoring in the field. The sub-projects were selected on the basis of a call for project proposal and following information and awareness-raising missions on the eligibility and selection criteria, the maximum amount and the management methods to potential beneficiary farmers' organizations, regional and departmental technical services as well as administrative and territorial authorities. Support, evaluation and supervision frameworks involving all stakeholders have been set up and have actively supported the process of making the fund operational. These frameworks function properly and provide technical assistance to farmers' organizations; they also monitor and supervise the implementation of projects in the field. At the departmental level, local support committees, made up of representatives of technical services, have been set up and have been informed and made aware of the climate resilience fund, the selection and eligibility criteria. The local support committees have supported farmers' organizations in the following: identifying and formulating sub-projects; providing technical assistance in preparing tender documents; selecting companies and suppliers for the construction of infrastructure (mini-water bores, water towers, storage warehouses, sheds, etc.) and the acquisition of equipment/inputs (drip irrigation, sprinklers, threshers, tractors, seeds, fertilisers, livestock feed, etc.); monitoring works; taking delivery of equipment and supplies; the technical supervision of production and operation; and reporting. At the regional level, the Regional Evaluation Committees, made up of representatives of the regional development services, preselected sub-projects on the basis of pre-established selection criteria. They periodically organize missions to monitor and supervise the activities of the local support committees and the implementation of the sub-projects in the field, provide recommendations and suggestions, and support reporting and quality control on fund management. At the national level, the National Approval Committee carried out the final selection of sub-projects, approved the modalities of fund management, ensured monitoring and supervision in the field, and made recommendations for improved implementation. In addition to these support and coordination frameworks, the project has put in place a set of financial engineering tools and strengthened the capacities of farmers' organizations. It has supported the establishment of procurement and reception committees whose members are made up of representatives of farmers' organizations and has strengthened farmers' organizations and members of the procurement committees in the financial and accounting management procedures of the climate resilience fund. This

accompaniment by the local support committees, regional evaluation committees and the national approval committee has enabled the beneficiary farmers' organizations to carry out procurement procedures, monitor the implementation of works and the supply of equipment and inputs, mobilise resources, pay for services, and carry out and justify expenditure without major constraints. For example, despite the context of COVID-19, the delegation in charge of procurement procedures and the empowerment of farmers' organizations selected local suppliers and contractors based on the procurement procedures in force and the timely completion of works and services for most of the contracts executed, at a time when travel between regions was prohibited.

134. Various funded sub-projects are being implemented in the field. In the municipality of Djilor, the fund enabled the supporting farmers' organization to finance XOF 12 million on credit at an interest rate of 3 percent for the implementation of IGAs for 13 groups and access to agricultural inputs (short-cycle rice seeds and vegetable seeds, fertilisers, phytosanitary products) on credit but at a lower cost. In the municipality of Kayemore, the fund enabled the supporting group to acquire a multifunctional threshing machine, a tractor and to carry out tillage and cereal threshing services inside and outside the area. The income from the first year of operation was used to purchase an estate car, which provides various transport services in the municipality. The group also acquired and sold on credit souna three millet seed and urea for the improvement of millet productivity. In the municipalities of Kathiote and Sagna, the climate resilience fund has enabled four groups to develop and operate three market gardening areas equipped with mini water bores, solar pumps, drip and sprinkler irrigation systems and to start market gardening activities. In the sylvopastoral zone and part of the eastern Senegal area, the fund has enabled beneficiary farmers' organizations to finance cattle and sheep fattening, poultry farming, purchase and sale of animal feed, processing of non-timber forest products, etc.

135. The field visits revealed some constraints in the investments made, notably: the low flow rates of the mini-water bores in the market gardening areas of the Kathiote municipality, which do not allow for the exploitation of all the surface areas of the plots; the low level of supervision and monitoring of the farmers, the weediness of the market garden crops and the absence of marketing strategies for agricultural products; in Kayemore, the failure of the improved poultry farming operation due to high animal mortality caused by the high heat and unsuitable shed; the sheep fattening operation did not produce the expected results because of the sale of sheep at low prices during the Tabaski feast; the delay in finalising work on the sheepfold, in installing sheep and delivering inputs for the market gardening area of Oudalaye. In Djilor, delays in delivering the local cereal storage warehouse due to the poor performance of the company have delayed the cereal storage operation.

136. Due to the slow process of setting up the fund, almost all of these sub-projects have just completed a first production/operating cycle, which does not allow an objective assessment of the profitability of the operations. The evaluation noted a significant delay in the establishment of the climate resilience fund. According to the Project Document, the fund was to be set up in the second year of the project, whereas the fund was actually set up two years later (2019). This is due to the delay in signing the MOU with FNDASP (planned in 2016, signed in 2019), the late availability of funds to beneficiaries, the lengthy process between the launch of the call for proposals, the information and awareness raising of stakeholders, the setting up of support and evaluation committees, training, project preparation, evaluation, selection, notification and signing of funding agreements. This has led to the late completion of infrastructure and equipment for some micro-projects. The construction of some infrastructure and equipment has still not been finalized (e.g. the sheepfold in Oudallaye, storage warehouses in Djilor), while other IGAs are only in their first phase of implementation and/or at the end of their first cycle of

operation. Almost all the FFS established on the farms of the funded sub-projects are experiencing difficulties in functioning due to the irregular presence of the technician and the lack of follow-up.

137. The doubling of the fund is not yet effective, although it should have been in the third year of the project. However, at the level of each sub-project financed, FNDASP has put in place an internal strategy for doubling up the fund (e.g. donations for livestock, financing by other members of the farmers' organization after reimbursement, etc.).

138. The evaluation rates the achievement of this output as Moderately Satisfactory.

Effect 4. Implementation of the project based on results management and applying lessons learned from the project in future actions

139. The logical framework of the Project Document does not have indicators to measure this effect. Based on the level of achievement of the outputs presented below, the evaluation rates Effect 4 as Moderately Satisfactory.

Output 4.1 A systematic field data collection system to monitor project outcome indicators is operational.

140. The project does not have a data collection system for monitoring outcome indicators. The evaluation notes a total absence of surveys, databases on the beneficiaries, CCA practices, technologies disseminated at the level of FFS and APFS as well as the effects and impacts of Dimitra clubs, the climate resilience fund, the VSLA funds and the IGAs. As previously mentioned, the project does not have a monitoring and evaluation expert. The project has focused its monitoring and evaluation on the accountability and reporting of the implementing partners, to facilitate the preparation of the contractual reports with GEF (project implementation report). Financial resources were not either provided for annual or ad hoc surveys to monitor project outcome indicators. Contractual reporting by partners focuses more on activities than on outputs, and even less on effects. The GEF tool to follow up outcome indicators which has to be populated at the mid-term and final evaluations, was only populated at the mid-term evaluation.

141. In conclusion, the evaluation rates the achievement of this output as Moderately Unsatisfactory.

Output 4.2 Mid-term and final evaluations have been conducted.

142. A mid-term evaluation was conducted in 2019 by external consultants. This evaluation made recommendations, the majority of which the project has implemented. Table 7 shows the conclusions and recommendations made and the level of achievement.

Table 7. Conclusions and recommendations of the mid-term evaluation and level of achievement

Conclusions	Recommendations	Level of achievement
The strategic relevance of the project is satisfactory. The project is well aligned with sustainable development and climate change adaptation priorities in Senegal. It is generally consistent with the GEF and FAO strategic frameworks for sustainable agricultural development and environmental and social safeguard.	FAO through the Project Coordination Unit needs to continue policy dialogue with the government to encourage it to fund the design, development and dissemination of CCA strategies in Senegal.	Ongoing (FAO has contributed to the development of the local development planning guide, which integrates four dimensions: climate change, gender, nutrition and migration).
Project implementation is progressing moderately well towards the achievement of project outcomes.	-	-
Overall, project implementation is satisfactory, although the responsiveness of the PCU and the monitoring-evaluation and planning mechanisms used still need to be strengthened to address the various internal and external constraints encountered during project implementation.	FAO needs to improve its implementation strategy by strengthening its project monitoring and evaluation system and by improving its anticipation and response capacities.	Not achieved.
Issues related to gender, vulnerable groups and environmental safeguards were addressed in a very satisfactory manner.	FAO, and particularly the technical division in collaboration with the FAO Representation in the country, need to assist the government to institutionalize the field school methodology and encourage the dissemination of adaptation technologies that are already proving interesting.	Ongoing (FAO is supporting the National Agency for Agricultural and Rural Council in a technical cooperation programme to internalize the Farmer Field School methodology in agricultural and rural council). An institutionalisation document is being prepared. In addition, FAO is supporting the National Agro-Sylvo-pastoral Development Fund to integrate the Farmer Field School Methodology into the research, training and extension continuum, in collaboration with the Senegalese Institute for Agricultural Research, universities and training centres. An orientation workshop has already been organized.
Sustainability factors have been identified and satisfactorily addressed.	FAO, through the Project Coordination Unit and the implementing partners, needs to resize the project results framework and the accompanying means to put in place a maximum of conditions to facilitate the sustainable adoption of the proposed technologies and strategies.	Ongoing (the target number of field schools to be set up has been reduced). Accompanying infrastructure and equipment are being implemented (drip irrigation system, modern poultry houses, pumping equipment).

Source: FAO. 2019b. *Mid-term review of Project "Mainstreaming Ecosystem-based Approaches to Climate-resilient Rural Livelihoods in Vulnerable Rural Areas through the Farmer Field School Methodology (GCP/SEN/065/LDF, GEF ID: 5503)"*. Rome. https://publicpartnershipdata.azureedge.net/gef/GEFDocuments/ada8c925-df7c-e811-8124-3863bb2e1360/MTR/MidtermReviewMTR__GEFID5503_MTR_FAO_Senegal_French.pdf (website visited on 23 March 2022)

Output 4.3 A communication strategy has been developed.

143. Initially, the project planned to achieve high visibility and effective communication through several activities integrated into the project design, which include: i) the recruitment of a communication and knowledge management expert as a member of the PCU; ii) the preparation of communication materials and tools that reflect the economic, ecological and social benefits of

the project; iii) several regional and national workshops needed for awareness raising and advocacy; and iv) several awareness-raising activities. During implementation, the monitoring and evaluation expert was not recruited and the project used the monitoring and evaluation expert from the FAO Representation to monitor the project. However, this configuration did not allow the project to fully carry out this function and limited its capacity to draw lessons from its experiences; the communication tools were developed but their validation and dissemination were much delayed. This is the case of the compendium of CCA practices produced by ANACIM and the CSE. The holding of COMRECC validation workshops has also been much delayed, mainly because of the COVID-19 pandemic. In terms of mass communication, the project used community radio stations and SMS or voice messages to disseminate climate information. Two videos on Dimitra clubs and CCA practices were published by FAO and Deutsche Welle (German television) and open days marking the end of the training of agropastoral field school facilitators were also organized.

144. The achievement of this output is rated as Satisfactory.

3.3 Efficiency

EQ 9. To what extent has FAO provided project identification, concept preparation, evaluation, preparation, approval and start-up, as well as supervision? To what extent have risks been identified and managed?

EQ 10. How effectively did the implementing agency carry out its role and responsibilities related to project management and administration? (Distinguish between FAO's role as the GEF agency in charge of implementing project activities and as the executing entity)

EQ 11. Was the project implemented efficiently in terms of resource mobilisation and use?

EQ 12. To what extent has the project sought to innovate with new approaches to facilitate implementation?

EQ 13. What is the level of communication among project stakeholders at the institutional and implementing levels?

EQ 14. What are the difficulties encountered in project implementation with regard to the relationship between institutional and implementing stakeholders?

EQ 15. How efficient is FAO in carrying out project procedures?

145. The project was prepared by FAO with the participation of most of the institutions involved in the implementation. The collaboration with the institutions and organizations led to the signing of partnership agreements with each of them. These partnerships briefly described the goals, activities to be carried out and the budget allocated to each of them. The evaluation team notes that the partnerships negotiated were somehow vague as to the quality of the desired outputs. For example, with the Facilitators' Network, the partnership notes that 600 FFS/APFS were to be established and made operational. However, the standards to be used in these FFS and APFS were not clearly defined. The partnership allocated a sum of XOF 80 000 per established FFS/APFS, which suggested that the work would be done in a perfunctory manner, given that setting up and running an FFS/APFS could easily cost ten times more over a production cycle. The partnership was eventually abandoned after several months of underperformance.

146. FAO worked in a difficult environment. For example, the dispersion of intervention areas combined with the large number of partnerships and limited staff hampered the implementation of some activities. The workload did not allow the project team to continuously monitor the successful implementation of partnerships. The performance reports that were submitted were often used to trigger payments rather than to generate knowledge for further activities. Reporting was not systematized and standardized across all partners. At the end of the MOU with FAO, RNFS

did not renew its collaboration with FAO. Due to the late resumption of collaboration between FAO and ANCAR, several ongoing activities were not completed while others did not even start.

147. In administrative management, slow FAO administrative, financial and procurement procedures have delayed the establishment of FFS/APFS and the payment of facilitators' allowances. Some FFS/APFS have only been able to operate for one production cycle.

148. In the framework of the management of climate resilience funds, the delegation of procurement procedures to farmers' organizations, technical assistance from the Regional Development Agency and the selection of local service providers made it possible to set up procurement procedures, contract execution and monitoring in a transparent and timely manner, despite COVID-19. With regard to the institutional set-up, it appeared that the quality of the institutional set-up of the climate resilience fund is a success despite the lack of a clear strategy for the sustainability of dedicated financial resources.

149. FAO supervision, which was rated as satisfactory during the mid-term review, has remained the same. The Chief Technical Officer, the Budget Officer and the GEF Coordination Unit staff have fully supported the project during its implementation; the field school and Club Dimitra components have benefited from support provided by FAO Headquarters in terms of capacity building of service providers. Follow-up missions were carried out during project implementation. The evaluation team met with the FAO project team during the preparation and conduct of the evaluation.

150. Overall, efficiency is rated as Moderately Satisfactory.

3.4 Sustainability

EQ 16. How sustainable are the project outcomes, and how likely are they to be sustained beyond the end of the project?

EQ 17. What are the main risks and elements that may affect the sustainability of the project benefits?

EQ 18. To what extent have the benefits of the project been scaled up at the institutional level?

EQ 19. What measures are in place in the context of COVID-19 to limit the effects of the pandemic on project activities?

EQ 20. What are the potential mechanisms for replication at the country level in the sub-region (due to the resilience mandate of the regional office)?

151. The project has put in place a set of mechanisms to ensure the sustainability of outcomes. To date, there are no plans to make the work of the facilitators in FFS sustainable. Similarly, the investment made in setting up and facilitating FFS and APFS has not been followed by a scaling-up strategy (from learning to dissemination) and no budget has been made available for this purpose. At the time of the mission, only a small proportion of FFS/APFS were able to continue the activities for the current season.

152. In theory, capacity building (information, training, awareness raising) of all stakeholders at all levels (administrative, local and national authorities, technical services, non-governmental organizations, farmers' organizations, farmers, agropastoralists, facilitators, relay facilitators) on the main instruments disseminated by the project (FFS, APFS, Dimitra clubs, VSLA, climate resilience funds) are factors likely to strengthen, consolidate and extend these instruments.

153. The participation and empowerment of farmers' organizations in the setting up and facilitation of FFS and APFS, as well as the training of several facilitators and relay facilitators is an important lever for continued support services for and by farmers' organizations and their members in the future. Raising awareness of various stakeholders (government, administrative and territorial authorities, elected officials) on the benefits of FFS and APFS and CCA strategies are favourable factors for advocating for their integration into national and local public policies. The process of institutionalising FFS and APFS in the research-extension and advisory continuum through FNDASP and the internalisation of FFS and APFS under the agricultural extension, via ANCAR, are favourable signals for the sustainability of FFS and APFS.

154. The involvement and empowerment of local non-governmental organizations (AVSF, Symbiose, National Federation of Cotton Producers) in the establishment of Dimitra clubs and VSLA funds, as well as the training of their facilitators, are a powerful lever for the continued provision of local services to the population. These stakeholders have all confirmed their commitment to continue supporting their partner farmers' organizations and to extend Dimitra clubs and VSLA funds to other areas. Organising the populations around Dimitra clubs and strengthening their capacities are palpable proof of the sustainability of Dimitra clubs, which have enabled them to take charge of the socioeconomic development problems of their localities, to find endogenous solutions to their problems and to carry out actions in this sense. In the same way, organising the populations around VSLA funds is a means of decentralising savings and facilitating access to credit at the village level, with or without the project.

155. The sustainability, rated globally as Moderately Likely, is assessed on the basis of financial, socio-political, institutional and governance and environmental risks.

3.4.1 Financial risks

156. The facilitation of FFS and APFS in the project intervention area stopped with the end of the project. Most of the beneficiary organizations do not have the means to continue paying the facilitators and the programme has not put in place an exit plan negotiated and accepted by the institutions to continue this work. The investment that has been made in IGAs will continue to benefit the direct recipients. Beneficiary multiplication schemes proposed by farmers based on voluntary transfer of benefits to other group members do not seem to be sustainable, in the absence of the necessary supervision. The cessation of the operation of multidisciplinary working groups due to a lack of funding is a major risk of disruption to the dissemination of climate information. If mechanisms are not put in place to mobilize and sustain resources for the operation of multidisciplinary working groups, farmers and agropastoralists will no longer receive agroclimatic information. The lack of a mechanism to double the climate resilience fund is a major risk for the financing of farmers' organizations' sub-projects.

157. On this basis, there are high financial risks that could hamper the sustainability of outcomes.

3.4.2 Socio-political risks

158. Social risk mitigation measures have been applied: inclusion, dialogue, focus on community needs, etc. However, some social risks remain, linked to potential conflicts that may arise in relation to farmers' access to the benefits generated by the project's activities. The lack of social cohesion due to the deviation of the Dimitra clubs from their objectives is a risk due to their cohabitation with VSLA funds. Moreover, Dimitra clubs are community-based and their conversion into formal "organizations" can lead to social tensions within the communities. Some Dimitra clubs are in the process of formalising themselves in order to be able to access credit from financial institutions or to be more credible with other potential partners. The multiplicity of

VSLAs in a village can lead to women over-indebtedness and social conflicts that are harmful to the cohesion of the community. This is a significant risk as the VSLA funds promoted by the programme are set up without taking into account the integration of farmers in similar already existing funds.

159. The probability is low that socio-political risks hinder the sustainability of outcomes.

3.4.3 Institutional and governance risks

160. The project's decision not to sign MOUs with the regional directorates of agriculture, livestock or water and forestry and ANCAR for the supervision and monitoring of APFS and FFS, has considerably reduced the involvement of the regional technical directorates to a single person: the facilitator (technician), who is likely to be assigned to another zone and for whom the facilitation-related activity may be overshadowed. The project had signed a MOU with the National Network of Facilitators and Master Trainers of Senegal to carry out this mission. Some officials of regional directorates and public agricultural advisory services did not feel involved in monitoring and supervising the setting up and facilitation of FFS and APFS, even though this is part of their regalian mission.

161. Increased conflicts of authority between institutions and within the same institution is a risk. Indeed, there have been misunderstandings between ANCAR and FNDASP due to their respective prerogatives, in connection with the institutionalisation and/or internalisation of FFS and APFS. This risk is significant and deserves to be mitigated; FAO could serve as a platform for exchange and discussion under the guidance of the Ministry of Agriculture and Rural Equipment. The diversity of stakeholders active in the promotion of field schools without consultation and coordination raises the risk of fragilizing the governance of the agricultural and rural council through FFS and APFS. The delays in signing the order on COMNACC reform, despite the countless efforts supported by the project, raise the question of climate change governance. Furthermore, the difficulties encountered by the project in integrating CCA into sectoral policies and programmes constitute institutional gaps that need to be filled.

162. The project's partner non-governmental organizations and projects are committed to replicating FFS, APFS and Dimitra clubs introduced by the project. Projects within the FAO Representation in Senegal are replicating FFS, APFS and Dimitra clubs, while other projects are planning to scale up the climate resilience fund. The government is currently institutionalising the FFS and APFS approach in the research-training-advisory continuum through FNDASP. ANCAR is also currently integrating the FFS and APFS approach into the agricultural and rural extension and advisory strategy.

163. On this basis, the institutional and governance risks that may hinder the sustainability of results are considered moderate.

3.4.4 Environmental risks

164. Among the potential environmental risks identified in the Project Document that could threaten the sustainability of project achievements was the following: "Knowledge-sharing networks are not sustained at the end of the project". The mitigation measures foreseen were formulated as follows: "Knowledge sharing networks will be converted into local multidisciplinary working groups under the responsibility of ANACIM with the objective of disseminating this example. It was observed in the field that ANACIM actually set up and facilitated regional multidisciplinary working groups. However, these multidisciplinary working groups, like the one in Tambacounda, operated when ANACIM had project funding. Unfortunately, following the termination of this

funding, this multidisciplinary working group is almost no longer active, going from more than 15 participants to two or three for the last sessions held before the evaluation team's visit. It should be recalled that apart from the multidisciplinary working groups, on the environmental front, the project has proposed various approaches and tools as well as the promotion of good agricultural practices, which have made it possible to strengthen the beneficiaries' climate change resilience through, among other things, the dissemination of climate information. The evaluation team had access to the initial classification and that of the mid-term review, which was considered Moderately Likely. This same classification was maintained. No actions were found that increased environmental risk. On the contrary, the achievements were related to environmental sustainability (sustainable land management, reforestation, use of organic products).

165. Therefore, the evaluation notes that there are no environmental risks to sustainability.

3.5 Factors affecting performance

EQ 21. Monitoring and evaluation: Does the monitoring and evaluation plan implement a practical and sufficient approach in its implementation? Did the monitoring and evaluation system function within the framework of the monitoring and evaluation plan? Was the information collected systematically using appropriate methods? Was the information from monitoring and evaluation used appropriately in decision-making processes?

EQ 22. Stakeholder engagement: were other stakeholders such as civil society, Indigenous People or the private sector involved in the design or implementation of the project? What was the impact of this on the project outcomes?

EQ 23. Was the project design appropriate to achieve the expected outcomes?

166. The COVID-19 pandemic in 2020 and the restrictive measures that had been adopted regarding travel between regions slowed down programming and the pace of project implementation. The partners interviewed confirmed that COVID-19 had a significant negative impact on their work plans and their capacity to implement their agreements with the programme.

3.5.1 Overall quality of monitoring and evaluation

3.5.1.1 Design of the monitoring and evaluation mechanism

167. In the Project Document, monitoring and evaluation tasks and responsibilities are clearly defined in the detailed monitoring plan and are to be carried out through: i) daily monitoring and supervision missions of the project's progress (PCU); ii) technical monitoring of indicators (PCU); iii) monitoring of activities at the food security level; iv) mid-term and final evaluations (independent consultants and FAO Evaluation Office); and v) continuous monitoring, follow-up and supervision missions (FAO).

168. The monitoring and evaluation mechanism is two-tiered and involves several stakeholders. The national project coordinator is responsible for the quality of the project's monitoring and evaluation. Together with the project team, he prepares the PIRs (every six months). The mid-term review was led by the FAO-GEF Coordination Unit at Headquarters in Rome and the project monitoring officer was based in the Coordination Unit. The final evaluation was handled by OED.

169. The project results chain shows a good coherence between the envisaged activities and the different levels of expected outcomes. The effects are grouped within three components that are complementary and relevant to the achievement of the final change targeted which is, as already stated, the improvement of food security and nutrition of agrosylvopastoral communities through the development of livelihoods resilient to the effects of climate change. Indeed, the three

components reflect the three levels of intervention of the project, namely: i) the production of knowledge, including endogenous knowledge and new CCA technologies developed by the project partners in a participatory manner; ii) the use of this knowledge and technologies by the beneficiaries through their dissemination and the capacity building of the targets; iii)the inclusion of the institutional dimension along with the integration of this knowledge and technologies into national policies, strategies and programmes as well as the capitalisation of the guarantees of sustainability.

170. Financially, resources are foreseen for most of the key elements of monitoring and evaluation, namely: the establishment of the baseline situation, the mid-term evaluation, the final evaluation and an impact study. The kick-off workshop, knowledge dissemination and field monitoring were also foreseen in the project design. However, the summary of costs related to monitoring and evaluation does not show coordination between the implementing stakeholders. The project used the monitoring and evaluation expert from the FAO Representation in Senegal to monitor the project. However, this configuration did not allow the project to fully carry out this function and limited its ability to draw lessons learned from its experiences. These meetings, in addition to refining the intervention strategy, are also opportunities for learning, sharing and exchange between the different parties to draw lessons from the intervention and find appropriate solutions quickly.

171. The analysis of the project results matrix shows a balance between quantitative and qualitative indicators. However, some indicators are too ambitious, particularly the indicators for Output 2.1.3 (At least 1 250 field schools are established or strengthened, including 750 crop production FFS and 500 APFS), Effect 2. 2 (Income of project-supported households have increased by at least 20 percent, LDCF AMAT Indicator 1.3.2), Effect 3.1 (CCA strategies are integrated into at least 30 percent of agricultural, forestry and pastoral sector policies and programmes, LDCF AMAT Indicator 1.1.1.1).

172. For these indicators, many factors are out of the control of the project, such as: the willingness of the targets to participate in the field school, the marketing of agricultural products, the control of market risks or political will. Furthermore, the matrix also shows inconsistencies in the mid-term and final targets for some indicators. Indeed, instead of monitoring the achievement level of the indicator between these two stages, new indicators are defined: for example, the indicator of Effect 2.1 "At least 25 percent of farmers' organizations participating in field schools use climate information and disseminated practices or technologies for climate change adaptation and resilience (LDCF AMAT Indicator 3. 1.1)", became "10 percent of farmers' organizations attending FFS use climate information" at mid-term and "25 percent of trained farmers or herders have adopted CCA practices" at the end of the project. Regarding the indicator on field schools, the baseline value is 1 366 existing field schools (already higher than the targeted 1 250). There should have been at least one objective of consolidating the existing field schools in the intervention area among the 1 250 planned.

173. On this basis, the design of the monitoring and evaluation system is considered Moderately Satisfactory.

3.5.1.2 Implementation of monitoring and evaluation

174. During implementation, the project did not have a monitoring-evaluation officer, responsible for monitoring, data collection and information on indicators. The project used the monitoring and evaluation expert from the FAO Representation in Senegal to monitor the project. This configuration did not allow the project to carry out this function and limited its ability to draw lessons learned from its experiences. The monitoring and evaluation work had to be carried out

in part by already overburdened technical experts. Thus, the performance of stakeholders in implementing the conventions and in planning of their activities received only a minimal evaluation which did not guarantee the quality of outputs. This approach does not ensure the independence and accountability of partners. Similarly, the lack of a monitoring and evaluation system has significantly reduced the programme's ability to learn from its experiences, refine its planning, assess performance and bounce back from it. The PCU conducts monitoring missions in the field. In addition to partner reports, data is also collected from the Country Annual Report of facilitators and focal points, which is sent directly to the PCU.

175. In the field, part of the monitoring and evaluation is carried out by implementing partners through contractual agreements which describe the quality of the processes, the results and the expected reporting format. Information collected manually on the status of project implementation in the three zones originates from the production sites (animators/facilitators) to the PCU via the focal points and supervisors respectively, who capitalize on the data at the municipality (focal points) and department (project supervisors) level. All this information is recorded in activity reports prepared by implementing partners and transmitted to FAO. These data are used for the preparation of project implementation reports.

176. The evaluation found a lack of a strategy to integrate learning and impact monitoring aspects. For example, some effect indicators were not properly monitored and measured, including indicators for: i) Effect 2.1: "at least 25 percent of farmer organizations participating in the field schools use climate information and disseminated climate change adaptation and resilience practices or technologies (LDCF AMAT Indicator 3.1.1)" and "twenty-five thousand people (40 percent of whom are women and youth) are direct beneficiaries of the project"; ii) Effect 3.2: "CCA strategies are integrated into at least 30 percent of agricultural, forestry and pastoral sectoral policies and programmes (LDCF AMAT Indicator 1.1.1.1)" and "at least 30 percent of agrosylvopastoral projects integrate CCA issues into their budgets (LDCF AMAT Indicator 1.1.1.2)"; and iii) Output 2.2.3: "50 percent of beneficiaries have adopted new varieties" and "70 percent of beneficiaries diversify their diet and meet their nutritional needs". For the indicator on doubling the climate resilience fund, no information was obtained by the evaluation team on the commitments of the targeted parties or on its status.

177. The project conducted two baseline studies to obtain the baseline situation of the different intervention areas in 2017 and 2018, i.e. more than two years after the start-up. A mid-term review was carried out in late 2018/early 2019 to determine progress towards the achievement of expected outcomes. The evaluation noted the lack of databases on achievements and outcomes, as the monitoring tool was not populated at the end of the project. In the reporting part of the project, the evaluation team had some difficulties in accessing the six-monthly reports, updated co-financing reports, minutes, annual work plans, minutes of steering committee meetings, co-financing reports, etc. The performance reports that were submitted served as the basis for the evaluation and were often used to trigger payments rather than to generate knowledge to improve further activities. This time lag also had a negative impact on partners' monitoring and implementation. Reporting was not systematized and standardized across all partners, which made it difficult to consolidate and share.

178. The implementation of the monitoring and evaluation system is rated as Moderately Unsatisfactory.

3.5.1.3 Quality of project design

179. Theoretically, the project design is appropriate, but in implementation it has shown shortcomings that have limited the achievement of outcomes. The wide intervention area (seven regions, 17

municipalities, three agroecological zones) and the very small size of the PCU (four people: coordinator, agriculture expert, livestock expert, policy and institution expert) caused difficulties in monitoring and supervising interventions in the field. As already mentioned, the project did not recruit a monitoring and evaluation expert exclusively dedicated to project activities. The monitoring and evaluation officer recruited for the "One Million Cisterns" project was also supposed to be involved in the monitoring and evaluation of the climate resilience project, but was not really involved in this project. This has led to shortcomings in monitoring and evaluation (lack of a survey to effect indicators and some outputs to measure the level of achievement of outcomes, lack of data collection on the achievements of co-financing partners, lack of mechanisms to capitalize on the achievements of implementing partners). The project also lacks a gender expert. This function is supposed to be performed by the gender focal point of the FAO Representation in Senegal, who is also an expert in social protection and who deals with the gender component of all ongoing projects. Given the overload of this expert's work, the gender dimension was only weakly taken into account in this project (absence of tools, mechanism, follow-up, alert and monitoring as well as reporting).

180. The multiple implementing partners (40 in number) and the lack of coordination of their interventions at the local level led to a lack of synergy and harmonisation of their field interventions. Moreover, the strategy of centralising the purchase of inputs, equipment and materials needed to set up and run FFS and APFS delayed their implementation and affected their functioning. In addition, the decision to directly pay the allowances of all facilitators caused delays and demotivated some of them. The absence of a clear mechanism for mobilising resources from co-financing partners also made it difficult for the PCU to maintain a constant dialogue with funding partners. As a result, consultation and coordination between the funding partners and the PCU quickly broke down at the beginning of the project; the monitoring of resources mobilized, achievements and outcomes achieved was not systematically carried out by the PCU.

181. As a result, the quality of the project design is rated as Moderately Satisfactory.

3.5.2 Quality of implementation

3.5.2.1 Coordination by the Project Coordination Unit

182. The project was directly executed by FAO, following the Direct execution modality. The PCU, recruited to ensure project implementation, works under the supervision of the Rome-based Plant Production and Protection Division), which acts as the Lead Technical Officer, and the GEF Coordination Unit within FAO. At the FAO Representation level, the FAO Representative in Senegal is responsible for the budget. The PCU received technical and financial assistance from the Lead Technical Officer, the GEF Coordination Unit and the FAO Representation in Senegal.

183. Despite the administrative constraints, the PCU demonstrated commitment and voluntarism, which allowed the project to be implemented in a participatory and inclusive manner and to mobilize as much as possible the necessary means to facilitate project implementation. The retention of PCU experts throughout the project – with the exception of the National Coordinator, who was promoted Programme Officer at the FAO Representation – was a positive factor in maintaining the overall momentum in project implementation. However, the working conditions of the PCU were not always ease. For example, the dispersion of intervention areas combined with the large number of partnerships and limited staff hampered project implementation. The absence of an expert in monitoring and evaluation exclusively dedicated to the project has created a gap in monitoring, data collection, analysis and project orientation, as well as capitalisation.

3.5.2.2 FAO technical assistance (headquarters and FAO Representation)

184. The Lead Technical Officer has supported project implementation through its missions: approval and monitoring of Annual Work Plans and Budget; technical support and monitoring missions; provision and proper management of project resources; management, operational monitoring of activities and proposal of corrective measures; follow-up of the recommendations of the mid-term review; etc. The LTO provided the necessary technical guidance to the project and was proactive in assisting the project to address constraints that threatened the delivery of quality outputs. Prior to COVID-19, ad hoc technical assistance missions were carried out to the PCU. The GEF Coordination Unit supported project development. It regularly reviewed and approved project implementation reports and financial reports. It also participated in the field supervision of the project and supported the mid-term review of the project. The PCU benefited from the technical assistance of FAO experts in the implementation of the FFS, APFS and Dimitra club approach.

185. The FAO Representation in Senegal worked in collaboration with the Government of Senegal and the headquarters team for the formulation of the project and its promotion by the Government of Senegal. It led the recruitment of the PCU and the launch of the project. It regularly approved budgets, MOUs with partners, field missions, guidance in implementation, payment of facilitators and implementing partners.

186. On the other hand, administrative bottlenecks contributed to the slowdown in the implementation of project activities, notably delays in signing MOUs with implementing partners, delays in the procurement procedures for the acquisition of inputs (fertilizers, seeds, equipment, irrigation network, etc.) necessary to set up FFS and APFS, delays in the payment of facilitators' allowances and service providers, etc.

187. The evaluation rates the quality of implementation as Moderately Satisfactory.

3.5.2.3 Project steering and supervision

188. The Ministry of Agriculture and Rural Equipment signed an order to set up the project's technical steering committee in July 2016. The technical steering committee is chaired by this same ministry or its representative and the secretariat is provided by the PCU. The committee has several members including the relevant ministries, representatives of elected officials, administrative and local authorities, technical services, directorates and agencies in the agrosylvopastoral sector and working on climate change issues, etc. The technical steering committee ceased to function during the last years of the project. Whereas it allowed members to review activity reports, approve annual work plans and budgets, and make recommendations to improve project implementation. It is worth noting that the steering committee meetings were not followed by field visits to visually confirm the achievements and to talk to the beneficiaries and implementing partners. COVID-19 was cited as one of the factors justifying the cessation of the committee's work, but it cannot justify the non-functioning of the technical committee with opportunities for virtual meetings. This is a glaring omission in view of the important role that the technical steering committee should play during the maturation and completion phase of the project. Thus, due to its irregular functioning, the Technical Steering Committee has not been able to: i) fully play its role in guiding the project after the periodic monitoring of the status of project objectives and achievement of outcomes; ii) facilitate the mobilisation of project and programme co-financing and inter-sectoral and inter-ministerial collaboration; iii) facilitate effective coordination between implementing partners; iv) steer the integration of the climate change dimension into sectoral policies and programmes; v) promote the institutionalisation of FFS/APFS; and vi) advocate for the doubling of the climate resilience fund.

189. The evaluation rates project supervision as Moderately Satisfactory.

3.5.3 Financial management and co-financing

EQ 24. To what extent has the expected co-financing materialized and has this affected project outcomes?

190. The level of co-financing implementation as of 31 June 2021 is 113 percent or USD 27.8 million compared to USD 24.6 million initially planned for the project, an increase of 13 percent. All financial contributions from partners through the PASA/LouMaKaf, National Agency for the Great Green Wall, PAFA-E, P2RS, and PADAER projects, have been implemented at 100 percent.

191. Additional co-financing from AVSF and the Regional Sahel Pastoralism Support Project during project implementation (USD 2 261 330 and USD 960 900 respectively) covering the monitoring, implementation and supervision of Dimitra clubs and APFS also contributed to this performance.

192. Table 8 presents the co-financing status as of June 2021.

Table 8. Co-financing status (USD)

Co-financing	Amount at planning stage	Total amount reported in the 2020 Project Implementation Report	Actual amount obtained as of 30 June 2021 (2021 Project Implementation Report)	Implementation rate (%)
Food Security Support Project Loumakaf	9 769 939	5 126 450	9 769 939	100%
National Agency for the Great Green Wall	3 068 656	1 250 340	3 068 656	100%
Agricultural Value Chain Support Project-E	3 321 254	66 425	3 321 254	100%
Multinational Programme to Build Resilience to Food and Nutrition Insecurity in the Sahel	4 225 390	2 330 370	4 225 390	100%
Support to Agricultural Development and Rural Entrepreneurship Programme	4 022 146	201 107	4 022 146	100%
Food and Agriculture Organization of the United Nations	200 000	180 000	180 000	90 %
Agronomes et vétérinaires sans frontières	-	2 261 330	2 261 330	100%
Regional Sahel Pastoralism Support Project	-	960 900	960 900	100%
TOTAL	**24 607 385**	**12 376 922**	**27 809 615**	**113 %**

Sources: FAO. 2020. *Project implementation report.* Rome.
FAO. 2021. *Project implementation report.* Rome.

193. The total cost of the project is UD 34 038 610 comprising USD 6 228 995 financed by GEF and USD 27 809 615 in co-financing.[7] The financial implementation rate is 98.2 percent as of 28 February 2022, corresponding to USD 6 116 876, with a budget implementation rate of 98.2 percent for the same period.

[7] FAO, as the GEF Agency, is responsible for the execution of GEF resources and cash co-financing transferred to a GEF bank account.

3.5.4 Project partnerships and stakeholder engagement

194. The project was developed and implemented through a partnership approach that mobilized at least 16 implementing partners including eight umbrella organizations (National Federation of Cotton Producers, Entente des groupements associés pour le développement à la base Kawral Younouféré, Gallé Aynabé Barkedji, Pinal Bamtaare Thiel, Economic Interest Group Lewna Kathiote, Economic Interest Group Kouthiary Fary Ndella, Economic Interest Group Kambeng Koussar). These various partners have invested in the partnership and have generally respected their commitments with regard to the project. The Facilitators' Network, which has ended its partnership, has done so in a transparent manner and in compliance with the conditions of the partnership (informing the PCU and repaying the balance of the resources made available by FAO).

195. The partnerships with the project are diversified and well targeted: umbrella farmers' organizations well anchored in their territories, a non-governmental organization specialised in pastoralism and mastering the sylvopastoral area (AVSF), a non-governmental organization specialised in self-promotion dynamics (SYMBIOSE), institutions specialised in climate information, environment, climate change and sustainable development (ANACIM, CSE), a professional association specialised in field schools (National Network of Facilitators and Master Trainers of Senegal), an advisory support institution (ANCAR), and institutions specialised in local planning (Regional Development Agency).

196. The targeting of institutional partners is relevant. ANCAR, FNDASP, the Directorate of the Environment and Classified Establishments (DEEC), ANACIM and the CSE are permanent institutions and the purpose of their partnership is in line with their respective missions, which is a factor for action sustainability. To speed up the implementation of income-generating activities and micro-projects that promote resilience practices, the project has paired up with FNDASP, whose mission and activities are in direct line with these groups of project activities. This strategy turned to be efficient given the high level of implementation of these sub-projects and the good outcomes achieved within the intervention areas. In addition, under the agreement with ANCAR, the programme was late in finalising the signing of the addendum; consequently, several ongoing activities had not been completed and others had not started at the time of the final evaluation.

197. ANCAR, ANACIM, the CSE and FNDASP are autonomous state-approved organizations established to address specific concerns of the state and other development stakeholders. The Directorate of Environment and Classified Establishments (DEEC) is a department of the Ministry of Environment and Sustainable Development. Their public service missions are respectively centred on agricultural and rural council (ANCAR), civil aviation and meteorological activities in Senegal (ANACIM), the production of knowledge and services on the sustainable management of natural resources, agricultural financing, in particular agricultural and rural council services (FNDASP), and the implementation of government policy on the environment, in particular the nature and human protection against pollution and nuisances (DEEC). These institutions are technical and strategic partners in agricultural and rural development in Senegal.

198. By calling on RNFS to set up and run FFS and APFS, the project wanted beneficiary organizations to benefit from the network's experience. This agreement did not bear fruit due to the lack of coordination of field activities and an insufficient budget to carry out the required work, which led to underperformance and ultimately to the termination of the agreement. In 2020, the project, in its intervention strategy, chose to contract farmers' organizations directly by recruiting local relay facilitators for FFS. The targeting of farmers' organizations and their facilitators turned out to be relevant. These organizations are anchored in territories, they work with the communities targeted by the project, they have human resources committed to grassroots development and

therefore have natural contact with their members and a strong reputation among local stakeholders: they thus offer good possibilities for continuing the action beyond the project. This was the right strategy.

199. The project did not sufficiently use the results of the studies on climate change vulnerability and the collection of good adaptation practices in each agroecological zone. Indeed, the intervention zones had relatively similar sets of activities, even though they have specificities as indicated in the studies. In addition, the evaluation team noted the lack of follow-up and systematic sharing of the knowledge generated between stakeholders in the different zones. This represents a missed opportunity for some zones and stakeholders. Indeed, they could have improved their strategies based on the successes and failures of other zones or stakeholders with previous experience. The following weaknesses were noted:

i. The multistakeholder dynamic did not work well. Indeed, complementarities and synergies between implementing partners were insufficient, despite the good will of stakeholders. Several factors explain this: i) the lack of ownership by partners of the project's issues, including networking; ii) the absence or inadequacy of communication, monitoring and participatory evaluation tools; iii) the lack of institutional support for the action at the decentralized level (e.g. regional).
ii. Despite the meetings conducted at regional level by the project, the Regional Directorates for Rural Development (DRDR) were more executors of specific tasks than "drivers" of a greater strategic dynamic for regional agricultural and rural development. This steering is, however, the core of their mission. Indeed, the DRDRs are responsible for monitoring and coordinating the actions of projects/programmes within their region.
iii. The project mobilised individual focal points and facilitators from public institutions without relying on their institutions. The work was carried out to the detriment of the institutional coherence theoretically advocated by FAO and claimed by the institutions concerned (ANCAR, DRDR, regional livestock services).

3.5.4.1 Level of coherence of synergies between stakeholders

200. The project is part of a multistakeholder and multisectoral approach. Stakeholders participated in the launch of the project. The completion of the initial diagnostic study by the CSE and ANACIM facilitated the rapprochement between these two institutions, on the one hand, and, on the other, allowed the participation of stakeholders in the field (local authorities, administrative authorities, implementing partners, communities, deconcentrated services, etc.). The development of the training programmes, in particular that of APFS, was inclusive and allowed for collaboration between stakeholders. The climate resilience fund mechanism allowed a good dynamic at the regional level through the regional evaluation committees and at the departmental level through the local support committees. Multidisciplinary working groups have been active in some regions and have enabled networking of stakeholder institutions.

201. Four notable achievements can be noted in terms of stakeholder synergies: i) the revitalisation of the National Committee on Climate Change (COMNACC) and the Regional Committees on Climate Change (COMRECC) as policy and operational instruments; ii) the establishment of the Climate Resilience Fund through benchmarking and an original architecture; in addition, the knowledge platform supported by the International Fund for Agricultural Development has been upgraded to integrate the climate change adaptation dimension; iii) the development of a national guide for local planning that integrates four strategic cross-cutting dimensions (climate change adaptation, nutrition, migration and gender); and iv) the process of institutionalising field schools is underway: ANCAR has been empowered by the Ministry of Agriculture and Rural

Equipment and a multistakeholder process is being initiated by FAO to make field schools a focus for research, training and development.

202. On the other hand, the large number of partnerships has overtaken the quality of the approach, with little or no coordination between partners in the field and no synergy and harmonisation of interventions between partners. This is largely due to the lack of coordination frameworks in the field supported or created by the project.

203. In conclusion, the evaluation rates the level of coherence of the project, including the synergy between stakeholders, as Moderately Satisfactory.

3.5.5 Communication, knowledge management and knowledge products

204. A communication strategy was foreseen at the project's inception to promote visibility, knowledge sharing and "communication for development". During implementation, the project produced quarterly newsletters to communicate on the activities carried out and the outcomes achieved. According to the project team, the PCU held two meetings of the technical steering committee and one meeting of the co-financing partners during which information on the status of project implementation was presented and discussed. However, the evaluation team does not have the minutes of these meetings to certify their effectiveness, despite the requests made. Two videos on Dimitra clubs and CCA practices were published by FAO and Deutsche Welle (German television). A capitalisation document on APFS has been produced by AVSF, a collection of good CCA practices has been elaborated and translated into local languages. Visits to capitalize on the experiences of Dimitra clubs were made to Senegal and Niger within the framework of the FAO's South-South cooperation. The project also uses community radios to disseminate climate information and information on climate change adaptation, FFS, APFS and Dimitra clubs. FNDASP is currently conducting a capitalisation study of the sub-projects financed by the climate resilience fund. As earlier noted, there has been weak knowledge management at the level of institutional stakeholders but especially at the level of FFS/APFS in relation to communities.

3.6 Cross-cutting concerns

3.6.1 Gender

EQ 25. To what extent have gender issues been taken into account in the design and implementation of the project? Has the project been implemented in a way that ensures gender-equitable participation and benefits?

Environmental and social safeguards

EQ 26. To what extent have environmental and social concerns been taken into account in the design and implementation of the project?

EQ 27. Is the project's original risk classification of environmental and social safeguards still relevant?

EQ 28. Did the project help beneficiaries adapt to climate change?

3.6.2 Gender and social inclusion

205. The main concepts demonstrating that a project is sensitive to human rights and gender equality are inclusion, participation, non-discrimination and equitable power relations. These dimensions were taken into account from the formulation to the evaluation of the project. During implementation, the project ensured that they were mainstreamed.

206. Gender was taken into account in most of the project's activities during implementation. Indeed, from the formulation phase, the project had foreseen gender mainstreaming in the formulation of indicators by providing for a certain percentage of women among the targets of certain activities, for example: i) 15 000 farmers and 10 000 agropastoralists trained, of whom at least 30 percent are women and youth; and ii) two exchange visits organized between field schools per year (intra and interagroecological zones) with the participation of at least 25 percent of women and youth. (LDCF AMAT Indicator 3.2.1.1). Gender is also taken into account in field schools by identifying specific actions that can increase their participation, such as: demonstrating women's workload in the form of a role play, involving women in the governance bodies of farmers' organizations, capacity building sessions, etc. The observation made in the field is that there is a strong presence of women in FFS, APFS, Dimitra clubs and micro-projects. Data from the 2020 Project implementation report and partners' reports show that out of the 4 200 agropastoralists trained in APFS, women are in the majority, representing 2 310, or 55 percent of members. At the level of FFS, there are 5 025 women out of 8 376 members trained in CCA practices, or 60 percent. At the level of the beneficiary farmers' organizations, 39 percent were women (1 280) compared to 61 percent of men (2 030). Dimitra clubs play an important role in capacity building and leadership for women and youth. Women are the most represented, with 51 percent of clubs composed entirely of women, compared to 42 percent of men. The remaining 7 percent of clubs are mixed (youth or the elderly with men and women). *Caisses de résilience* help to strengthen the economic power of women and young people by enabling them to access finance in order to carry out IGAs. Finally, women are among the main beneficiaries of the sub-projects financed by the climate resilience fund.

207. The evaluation rates the gender and inclusion aspect as Satisfactory.

3.6.3 Environmental and social safeguards

208. The project has contributed to environmental and social safeguards by targeting vulnerable populations in different agroecological zones of the country. These areas are characterized by relatively high levels of land degradation. All the actions proposed by the project, ranging from the FFS and APFS approach adopted with farmers, the Dimitra clubs and VSLAs, the establishment and facilitation of multidisciplinary working groups that allow the dissemination of climate information and the promotion of CCA practices, contribute to increasing the resilience of the ecosystem and local communities to climate change and to strengthening social cohesion within the communities. In the field, the projects have carried out several activities that contribute to the sustainable management of the environment and natural resources. Reforestation (field windbreaks, hedges) has been carried out in FFS and APFS as well as in market garden areas. Agroforestry is also practised at the level of FFS and market gardening areas. In APFS, information and awareness-raising sessions on the fight against bush fires and deferred grazing for degraded pastures were held. In the groundnut basin and eastern Senegal, farmers were informed and made aware of good practices for sustainable land management, restoration of degraded land and water conservation. Also, at the level of FFS, APFS and market gardening perimeters, the project has disseminated agroecological practices (use of organic manure, use of biological products for preventive control of crop pests and diseases, promotion of organic cotton cultivation).

209. Guidance documents, the integration of CCA practices by other projects, the revitalisation of COMNACC and COMRECCs, and all the work done to integrate CCA into national policies can have positive effects on the dissemination and eventual institutionalisation of the approach, with positive social and environmental consequences. In this respect, the involvement of state services such as the CSE and ANACIM and of certain ministries such as the Ministry of the Environment and Sustainable Development as strategic partners is a good factor for sustainability.

210. In conclusion, the evaluation rates the environmental and social safeguards as Highly Satisfactory.

4. Conclusions and recommendations

4.1 Conclusions

Conclusion 1. The project is relevant to national, FAO and GEF strategic priorities and meets the needs of the beneficiaries. The mobilisation and commitment of partners in project implementation reflect their shared interest in climate change adaptation, gender equity and ecosystem resilience.

211. The ministries in charge of agriculture, livestock, the environment and social action have been active in the implementation of the project. Their positive assessments of the project show that the latter is in line with national policies and strategies. There have been no changes in the initial problematic, which was confirmed by the diagnostic studies and the multistakeholder consultations carried out at the start of the project.

212. The project is also relevant to the needs of the beneficiaries. The latter have strengthened their knowledge and know-how to improve the resilience of their production systems and develop community dynamics of self-promotion contributing to the management of the community needs through Dimitra clubs. In addition, women and youth beneficiaries through positive discrimination in targeting, IGA support and Dimitra clubs were able to strengthen their decision-making and economic power.

Conclusion 2. The project effectively built the capacities of institutional stakeholders and farmers' organizations in terms of climate change adaptation, resilience and gender equity.

213. The project has effectively contributed to the integration of CCA into policies, projects and programs. Thanks to the project, the legal framework of COMNACC has been revised and the COMRECCs of Matam and Louga have also been revitalized; the COMRECCs of Kaolack, Tambacounda, Fatick, Kaffrine and Diourbel are on hold. Parliamentarians and local elected officials have been informed, made aware and trained on climate change adaptation issues. The institutionalisation of Farmer Field Schools is well on track, while the climate resilience fund is effective. Institutionalising the integration of CCA in local planning instruments is also well underway with the ongoing validation of the local planning guide integrating the four cross-cutting dimensions (CCA, migration, nutrition and gender).

214. Several key institutions have been strengthened: the Directorate of the Environment and Classified Establishments (DEEC), ANACIM, the CSE and ANCAR. The human capital of decentralized technical services (agriculture, livestock, water and forestry) has been trained in the areas of FFS and the integration of climate change adaptation and gender equity dimensions. The IPPM facilitators' network updated its FFS approach by integrating CCA and APFS. National expertise in Dimitra club has been strengthened through trained implementing partners. The project has facilitated the initiation of institutional dynamics through the revitalisation of COMRECCs and certain multidisciplinary working groups, the establishment of a network for the dissemination of climate information to farmers and communities, and the climate resilience fund mechanism (regional evaluation committee at the regional level and local support committees at the local level). The integration of farmers' umbrella organizations as implementing partners has strengthened their capacities in the following areas: facilitation of FFS, APFS and Dimitra clubs, provision of advisory services to their members, mainstreaming of climate change adaptation and gender equity, networking, etc.

Conclusion 3. The project has taken gender and environmental issues into account in its design and is actually reaching a majority of women. The environmental dimension was also central to the project.

215. The environmental dimension and the vulnerability of women and youth were clearly identified in the contextual analysis. Gender has been taken into account from the very beginning of the project with the development of a gender indicator (40 percent of women and youth are directly affected by the project). Gender has also been taken into account in most of the project's activities during implementation. Within field schools, specific actions have been identified to increase women's participation, such as mulching of market garden crops. Women make up the majority in most APFS, FFS, Dimitra clubs and micro-projects. Fifty-one percent of the Dimitra clubs are composed exclusively of women. They represent between 55 and 60 percent of the trained beneficiaries.

216. The environmental dimension was central to the project. Environmental vulnerability was an important criterion in targeting the project intervention areas. All of the actions promoted by the project contribute to increasing the resilience of ecosystems to climate change (CCA practices via FFS and APFS, Dimitra clubs, multidisciplinary working groups). At the policy and institutional level, policy documents, the revitalisation of COMNACC and COMRECCs and the development of a local planning guide integrating climate change adaptation, are contributing to a better mainstreaming of CCA within national policies.

Conclusion 4. Project implementation had several shortcomings that have affected its effectiveness.

217. Indeed, many factors negatively affected project implementation. Due to FAO's administrative bottlenecks, most FFS and APFS were established late and over a wide intervention area. Emphasis was laid on the quantity of APFS to be set up to the detriment of the quality of the pedagogy and the relevance of the topics addressed, which were often not very innovative and sometimes poorly adapted to the production systems of the beneficiaries (little activities on groundnuts in the groundnut basin; few activities on pastoralism in the Ferlo, etc.). In the absence of a monitoring and evaluation system and given the significant decrease in number of facilitators, the project has had neither the time nor the means to systematically correct these shortcomings. Finally, the context of the fight against the COVID-19 pandemic from the beginning of 2020 also reduced its flexibility and limited its capacity for action in the field.

4.2 Recommendations

218. Based on the findings and conclusions, the following recommendations are made.

Recommendation 1. To FAO, high importance, high priority. Conduct a formal closure of activities by formally informing all partners and requesting them to do the same with the stakeholders on the field, especially the beneficiaries.

Recommendation 2. To FAO, medium importance, medium priority. In future projects, empower from the outset grassroots farmers' organizations to train participants at the FFS and APFS level, set up, facilitate, monitor and capitalize on the project, in order to avoid the risks of decreasing the number of agriculture and livestock technical agents and overloading them.

Recommendation 3. To FAO, high importance, medium priority. In future interventions, promote better coordination of partnerships and harmonisation of FFS-Dimitra clubs-VSLA-climate resilience fund approaches, as well as a revision of the related guides.

Recommendation 4. To FAO, high importance, high priority. Delegate procurement procedures to implementing partners to facilitate the acquisition of inputs, materials, or equipment needed for the establishment and operation of FFS/APFS.

Recommendation 5. To FAO and GEF, medium importance, medium priority. Strengthen coordination, synergies of action and harmonized interventions among implementing partners by establishing a mechanism for coordinating and monitoring the physical and financial achievements of funding partners as well as reporting to capitalize on lessons learned.

Recommendation 6. To FAO, high importance, high priority. For future projects, ensure that an exit plan is developed within six months prior to the end of the project and negotiated with all stakeholders. For this project, negotiate an indicative exit plan with stakeholders by the end of 2021.

Recommendation 7. To FAO, high importance, medium priority. For future projects, strengthen the capitalisation and sharing of knowledge generated during implementation.

Recommendation 8. To FAO, high importance, high priority. In future interventions, recruit a person dedicated to monitoring and evaluation and set up a functional monitoring and evaluation system.

Recommendation 9. To FAO, high importance, medium priority. When designing future projects, ensure the availability of human and financial resources to guarantee project implementation according to the geographical coverage.

Recommendation 10. To FAO, high importance, medium priority. Strengthen the sharing and communication of knowledge products with all stakeholders.

Recommendation 11. To FAO and ANACIM, high importance, high priority. Work with ANACIM and other development partners on a mechanism to sustain the funding and operation of multidisciplinary working groups.

Recommendation 12. To FAO, high importance, high priority. Proceed with the effective integration of pastoralism in APFS and focus on facilitation methods with agropastoralists at the centre of learning.

Recommendation 13. To FAO, high importance, high priority. Take into account the needs of persons with disabilities in the APFS, FFS, Dimitra clubs and VSLA fund approach.

Recommendation 14. To FAO, ANCAR, FNDASP and DECC, high importance, high priority. Follow-up on the finalisation of the signature of the decree to reform the COMNACC and the acceleration of the institutionalisation and internalisation process of FFS and APFS.

Recommendation 15. To FAO and FNDASP, high importance, high priority. Quickly put in place a mechanism to double the climate resilience fund.

5. Lessons learned

219. The inclusive dimension of the project given the plurality of partnerships is an important aspect of implementation. It allows for the mobilisation of resources through the co-financing system but also for a better achievement of the project's intended outcomes. It also helps to promote an intersectoral approach through collaboration between the various government technical services and other business areas. However, it requires coordination and communication to ensure the follow-up of commitments and perhaps also a certain limitation of the number of partnerships pursued. Given the procedural slowness of FAO in this area, it is not safe to multiply partnerships beyond what is strictly necessary.

220. The empowerment of farmers' organizations in the establishment and facilitation of FFS and APFS and the training of relay facilitators has turned out to be effective and is a good way of ensuring the ownership and sustainability of achievements.

221. The establishment of a climate resilience fund, which finances sub-projects managed directly by farmers' organizations with the assistance and supervision of technical services, contributes to the empowerment of farmers' organizations, self-learning on project management and the strengthening of good governance.

222. The dialogue and consultation established between the CSE and ANACIM has made it possible to bring together two major institutions, to pool their resources (human and financial) and to jointly produce scientific documents.

223. The participatory and inclusive dimension of the project through the plurality of partnerships is necessary, but its effectiveness is only guaranteed with good coordination of partnerships, joint planning, synergy and harmonisation of interventions on the field.

224. There is a need to delegate procurement procedures to farmers' organizations and other implementing partners and to make them accountable in order to bypass FAO's bottlenecks and facilitate the timely provision of infrastructure, equipment and inputs.

225. The multistakeholder and cross-sectoral coalition around the integration of climate change, gender, migration and nutrition in the local development planning and budgeting guide is a relevant, effective, efficient and sustainable approach.

226. Discussions and consultation between agents and technicians from agriculture, livestock, water and forestry, and agricultural advisors in the same eco-geographical zone around CCA issues, has allowed for the joint construction of know-how, the easing of working relationships and the promotion of a collective spirit.

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Appendix 1. People interviewed

Last name	First name	Organization/agency	Location
Aly	Abdoulaye	FAO	Rome
Ancey	Véronique	FAO	Rome
Ba	Issa	Association Kawral	Younouféré
Ba	Daouda	Entente des groupements associés pour le développement à la base	Dayane Guelodi
Ba	Kalidou	Entente des groupements associés pour le développement à la base	Dayane Guelodi
Ba	Amadou	Entente des groupements associés pour le développement à la base	Dayane Guelodi
Ba	Amado	Entente des groupements associés pour le développement à la base	Dayane Guelodi
Ba	Abdoulaye	Entente des groupements associés pour le développement à la base	Dayane Guelodi
Ba	Mamadou	Entente des groupements associés pour le développement à la base	Dayane Guelodi
Ba	Amadou	Entente des groupements associés pour le développement à la base	Dayane Guelodi
Ba	Daouda	Entente des groupements associés pour le développement à la base	Dayane Guelodi
Ba	Amadou	Entente des groupements associés pour le développement à la base	Dayane Guelodi
Ba	Cheikhna	National Federation of Cotton Producers	Ida Mouride
Ba	Aminata	Economic interest group Belede	Oudalaye
Ba	Dieynaba	Economic interest group Belede	Oudalaye
Ba	Diary	Economic interest group Belede	Oudalaye
Ba	Dieynaba	Economic interest group Belede	Oudalaye
Ba	Idy	Economic interest group Belede	Oudalaye
Ba	Mama	Economic interest group Belede	Oudalaye
Ba	Abou	Economic interest group Kouthiary Fary Ndella	Kouthiary Fary ndella
Ba	Maty	Economic interest group Kouthiary Fary Ndella	Kouthiary Fary ndella
Ba	Khady	Economic interest group Pentium Dekray	Katiote
Ba	Abdoulaye	Economic interest group Pinal Bamtaare	Koumoukh
Ba	Abou	Economic interest group Pinal Bamtaare	Dioulby
Ba	Cheikhou	Economic interest group Pinal Bamtaare	Thiel
Ba	Mariama	Economic interest group Pinal Bamtaare	Thiel
Ba	Aïssata	Economic interest group Pinal Bamtaare	Thiel
Ba	Daouda	Economic interest group Pinal Bamtaare	Thiel
Ba	Adama	Economic interest group Pinal Bamtaare	Thiel
Ba	Daly	Economic interest group Pinal Bamtaare	Thiel
Ba	Abdoulaye	Economic interest group Pinal Bamtaare	Thiel
Ba	Noury	Economic interest group Pinal Bamtaare	Thiel
Ba	Youssoupha	Regional Sahel Pastoralism Support Project (PRAPS)	Dakar
Ba	Malick	Symbiose	Kaolack
Ba	Malick	Symbiose	Nioro
Ba Sow	Souara	Economic interest group Dandiame	Barkédji
Babou	Raata	Association Kawral	Younouféré
Babou	Kadi	Association Kawral	Younouféré

Last name	First name	Organization/agency	Location
Bachirou Mbow	Amadou	Gallé Aynabé	Tambacounda
Badiane	Babacar	Focal point	Nioro
Bouna Ndiaye	Alassane	FAO	Dakar
Braun	Geneviève	FAO	Rome
Ciss	Khady	Economic interest group Lewna	Thiame
Cissé	Babacar	Economic interest group Kambeng	Kayemore
Cissé	Mbaye	Economic interest group Kambeng	Kayemore
Cissé	Birane	Economic interest group Kambeng	Kayemore
Cissé	Bamba	Economic interest group Kambeng	Koussanar
Cissé	Moustapha	IRSV	Louga
Cissé	Moustapha	PASALOUMAKAF	Linguère
Daff	Diegane	Economic interest group Dandiame	Barkédji
Daff	Adji	Economic interest group Dandiame	Barkédji
Deh	Oumar	Entente des groupements associés pour le développement à la base	Dayane Guelodi
Deh	Saoudatou	Economic interest group Belede	Oudalaye
Demba	Mamadou	IREF	Ouorossogui
Deme	Sadio	ANCAR	Barkédji
Deme	Yero	Economic interest group Kouthiary Fary Ndella	Kouthiary Fary ndella
Dia	Racky	Association Kawral	Younouféré
Dia	Alpha	Association Kawral	Younouféré
Dia	Oumar	Economic interest group Belede	Oudalaye
Diagne	Abdoulaye	DRDR	Matam
Diagne	Ndeye	Economic interest group Pinal Bamtaare	Thiel
Diallo	Aminata	Association Kawral	Younouféré
Diallo	Coumba	Association Kawral	Younouféré
Diallo	Djiby	Association Kawral	Younouféré
Diallo	Harouna	Association Kawral	Younouféré
Diallo	Amdiatou	National Federation of Cotton Producers	Tambacounda
Diallo	Amdiatou	National Federation of Cotton Producers	Ida Mouride
Diallo	Boubou	Gallé Aynabé	Missirah
Diallo	Diary	Economic interest group Belede	Oudalaye
Diallo	Maly	Economic interest group Belede	Oudalaye
Diallo	Aissata	Economic interest group Belede	Oudalaye
Diallo	Allassane	Economic interest group Belede	Oudalaye
Diallo	Ramata	Economic interest group Belede	Oudalaye
Diallo	Mamadou Pathé	Economic interest group Belede	Oudalaye
Diallo	Woury	Economic interest group Kouthiary Fary Ndella	Kouthiary Fary ndella
Diallo	Amdiatou	Economic interest group Kouthiary Fary Ndella	Kouthiary Fary ndella
Diane	Satou	Economic interest group Pentium Dekray	Katiote
Diao	Tougaye	Gallé Aynabé	Missirah
Diao	Fatimiata	Economic interest group Belede	Oudalaye
Diao	Alassane	Economic interest group Belede	Oudalaye
Diatta	Jean François	FAO	Dakar
Diatta	Clédore	IREF	Louga
Diaw	Penda	Economic interest group Pentium Dekray	Katiote

Last name	First name	Organization/agency	Location
Diaw	Moustapha	Food Security Support Project (PASA) Loumakaf	Dakar
Diene Fall	Mbacké	Association Kawral	Younouféré
Dieng	Seyni	Economic interest group Pinal Bamtaare	Thiel
Dieng	Barka	RNFS/IPPM	Dakar
Diobo Diene	Mame	FAO	Dakar
Diop	Samba	Regional Development Agency	Kaffrine
Diop	Samba	Regional Development Agency Kaffrine	Kaffrine
Diop	Mate	Economic interest group Kambeng	Koussanar
Diop	Ndeye	Economic interest group Lewna	Thiame
Diop	Mor	Economic interest group Lewna	Thiame
Diop	Aminata	Economic interest group Lewna	Thiame
Diop	Ibou	Economic interest group Pentium Dekray	Katiote
Diop	Khoudia	Economic interest group Pinal Bamtaare	Thiel
Diouf	Edouard	ANCAR	Ranérou
Diouf Sarr	Madeleine	Directorate of the Environment and Classified Establishments (DEEC)	Dakar
Djiba Dia	Samba	Association Kawral	Younouféré
Doro Diallo	Binta	Economic interest group Belede	Oudalaye
Doumbia	Arona	PROVAL CV	Dakar
Dramé	Mariama	National Federation of Cotton Producers	Ida Mouride
Dramé	Mamadou	Focal Point	Nioro
Fall	Lissa	FNDASP	Dakar
Fari	Haby	Association Kawral	Younouféré
Faye		Regional Development Agency	Djidiack
Faye	Malick	FAO	Dakar
Gaye	Babacar	Economic interest group Kambeng	Kayemore
Gueye	Gass	Economic interest group Pinal Bamtaare	Thiel
Ka	Oumar	Entente des groupements associés pour le développement à la base	Dayane Guelodi
Ka	Bassirou	Entente des groupements associés pour le développement à la base	Dayane Guelodi
Ka	Oumar	Entente des groupements associés pour le développement à la base	Dayane Guelodi
Ka	Paté	Entente des groupements associés pour le développement à la base	Dayane Guelodi
Ka	Cheikhou	Economic interest group Pinal Bamtaare	Thiel
Ka	Paté	Economic interest group Pinal Bamtaare	Thiel
Ka	Makhfouss	Economic interest group Pinal Bamtaare	Thiel
Ka	Awa	Economic interest group Pinal Bamtaare	Thiel
Ka	Seynabou	Economic interest group Pinal Bamtaare	Thiel
Ka	Biram	Economic interest group Pinal Bamtaare	Thiel
Ka	Birama Ndjimbatte	Economic interest group Pinal Bamtaare	Thiel
Kab	Babacar	ANCAR	Thiel
Kab	Babacar	FAO	Barkédji
Kane	Atoumane	AVSF	Matam
Kanouté	Keba	Economic interest group Kambeng	Koussanar
Koly	Saïd	FNDASP	Dakar
Koné	Odiba	Gallé Aynabé	Missirah

Last name	First name	Organization/agency	Location
Konte	Ndeye	Economic interest group Pinal Bamtaare	Thiel
Konté	Oumar	ANACIM	Dakar
Lamine Touré	Mamadou	Economic interest group Kambeng	Koussanar
Malou	Lycien	SDDR Kaffrine	Kaffrine
Manka	Ousmane	Economic interest group Kambeng	Koussanar
Mbaye	Moustapha	ANCAR	Dakar
Mbaye	Aly	Economic interest group Kambeng	Kayemore
Mendy	Cecile	FAO	Dakar
Monsieur	Christiane	FAO	Rome
Moutar	Faty	Association Kawral	Younouféré
Ndao Diop	Modou	DRDR	Matam
Ndao Tall	Samba	DRDR	Kaffrine
Ndene	Simon	FNDASP	Dakar
Ndiaye	Magate	Economic interest group Lewna	Thiame
Ndiaye	Awa	Economic interest group Pinal Bamtaare	Thiel
Ndiaye	Ndeye	Economic interest group Pinal Bamtaare	Thiel
Ndiaye	Daba	Economic interest group Pinal Bamtaare	Thiel
Ndour	Arfang	FNDASP	Dakar
Niang	Modou	Association Kawral	Younouféré
Niang	Faty Racky	Economic interest group Pinal Bamtaare	Thiel
Niang	Maty	Economic interest group Pinal Bamtaare	Thiel
Ousmane Thiam	Daouda	Economic interest group Kambeng	Koussanar
Padane	Faty	CADL	Kaffrine
Pene	Sadibou	FAO	Dakar
Poisot	Anne Sophie	FAO	Rome
Sadji	Ameth	ANCAR	Djilor
Salane	Ibrahima	Organisation professionnelle agricole	Kathiote
Salif Ba	Soutoura	Association Kawral	Younouféré
Sall	Amadou	CSE	Dakar
Sana Ba	Dembo	Association Kawral	Younouféré
Sarr	Pape	Association Kawral	Younouféré
Sarr	Makhfousse	FAO	Dakar
Sarr	Diarra	Economic interest group Lewna	Thiame
Seck	Yama	Economic interest group Pentium Dekray	Katiote
Seck	Fatma	Economic interest group Pinal Bamtaare	Thiel
Seck	Faty	Economic interest group Pinal Bamtaare	Thiel
Segane	Diabou	Economic interest group Pinal Bamtaare	Thiel
Segnane	Awa	Economic interest group Pinal Bamtaare	Thiel
Sémou Diouf	Mame	AVSF Linguère	Linguère
Séne	Diomaye	SRADL	Matam
Sonko	Doudou	Gallé Aynabé	Missirah
Sow	Hawa	Association Kawral	Younouféré
Sow	Oumar	Association Kawral	Younouféré
Sow	Ousmane	Association Kawral	Younouféré
Sow	Makka	Entente des groupements associés pour le développement à la base	Dayane Guelodi

Last name	First name	Organization/agency	Location
Sow	Coumba	Economic interest group Belede	Oudalaye
Sow	Awa Alassane	Economic interest group Dandiame	Barkédji
Sow	Salata	Economic interest group Dandiame	Barkédji
Sow	Diago	Economic interest group Kouthiary Fary Ndella	Kouthiary Fary ndella
Sow	Mamadou	Economic interest group Kouthiary Fary Ndella	Kouthiary Fary ndella
Sow	Bocar	Economic interest group Kouthiary Fary Ndella	Kouthiary Fary ndella
Sow	Coumba	Economic interest group Kouthiary Fary Ndella	Kouthiary Fary ndella
Sow	Molly	Economic interest group Kouthiary Fary Ndella	Kouthiary Fary ndella
Sow	Amadou	Economic interest group Pinal Bamtaare	Thiel
Sow	Djida	GPF Loumbel Mbada 2	Barkédji
Stefano	Mondovi	FAO	Rome
Sy	Lamine	Association Kawral	Younouféré
Sy	Bilo	Economic interest group Belede	Oudalaye
Sy	Rouguy	Economic interest group Belede	Oudalaye
Sy	Sadiel	Economic interest group Pinal Bamtaare	Thiel
Thial	Moustapha	Economic interest group Pentium Dekray	Katiote
Thial	Atta	Economic interest group Pentium Dekray	Katiote
Thiamp	Bambi	Economic interest group Pinal Bamtaare	Thiel
Tidiane Djigo	Cheikh Ahmed	AVSF Linguère	Linguère
Top	Faly	Economic interest group Pinal Bamtaare	Thiel
Toure	Aïssata	Economic interest group Pinal Bamtaare	Thiel
Touré	Abdourahmane	Regional Development Agency	Matam
Veretpicot	Maude	FAO	Rome
Wilane	Elimane	Economic interest group Pentium Dekray	Katiote
Wilane	Amadou	Economic interest group Pentium Dekray	Katiote
Wilane	Babacar	Economic interest group Pentium Dekray	Katiote
Wilane	Mor	Economic interest group Pentium Dekray	Katiote
Wilane	Ndeye Fatou	Economic interest group Pentium Dekray	Katiote
Wilane	Fatou Alima	Economic interest group Pentium Dekray	Katiote
Wilane	Ndeye Awa	Economic interest group Pentium Dekray	Katiote
Wilane	Sala	Economic interest group Pentium Dekray	Katiote
Willane	Ali	National Federation of Cotton Producers	Ida Mouride

Appendix 2. GEF evaluation rating criteria table

GEF criteria/sub-criteria	Note	Comments
A. STRATEGIC RELEVANCE		
A1. Overall strategic relevance	**S**	
A1.1. Alignment with GEF priorities and FAO strategic priorities	**HS**	The project is consistent with FAO priorities and contributes to GEF strategic priorities.
A1.2. Relevance to national, regional and global priorities as well as beneficiaries' needs	**HS**	The project is in line with the Emerging Senegal Plan and the various sectoral orientations and policies concerned.
A1.3. Relevance to the needs of the beneficiaries.	**S**	The project has taken into account the context of the intervention area. It provides technical and practical CCA knowledge but also allows women and youth beneficiaries to have opportunities to strengthen their decision-making and economic power. However, some additional needs that emerged during implementation were partially or not addressed.
A1.4. Complementarity with existing interventions	**HS**	One of the criteria for choosing the intervention area is the presence of projects (with or without co-financing) that allow for synergies. Synergies have been developed with existing projects.
A1.5. Appropriate project design to produce the expected outcomes	**MS**	Satisfactory design but: i) very large intervention area; ii) small size of the project team; iii) lack of a monitoring and evaluation expert, lack of regional antennas or local focal points, and multiple partners limited implementation and the achievement of outcomes.
A1.6. Level of coherence of synergies between stakeholders (institutional, then implementing stakeholders)	**MS**	Many efforts have been made but the plurality of partnerships has taken precedence over the multistakeholder partnership, resulting in a near absence of coordination between partners in the field, a lack of synergies and harmonisation of interventions. The coordination of interventions between the project and co-financing partners initiated at the start of the project did not continue (PASA, PAFA, PADAER, P2RS, Senegalese Agency for Reforestation and the Great Green Wall, PRAPS).
B. EFFECTIVENESS		
B1. Overall evaluation of project outcomes	**MS**	
B1.1 Output achievement	**MS**	
Output 1.1.1. ANACIM and CSE have analysed threats, opportunities and constraints due to climate change and proposed an integrated CCA strategy for each specific project area	**S**	All knowledge products have been developed but their level of dissemination remains limited to facilitators and relay facilitators.
Output 1.1.2. Information management systems and tools used by the national multidisciplinary working group are strengthened to integrate climate change aspects; local multidisciplinary working groups are created and participate in the agroclimatic advisory system	**MS**	Multidisciplinary working groups are revitalized and have provided climate information, however, following the cessation of their funding, the majority of them are no longer operational.
Output 2.1.1. Specific training programs for field schools focused on CCA, ecosystem resilience and integration between agricultural, sylvopastoral production systems and nutrition are developed and disseminated	**MS**	Training programs have been revised to integrate CCA. However, the content of APFS does not sufficiently take into account issues related to pastoralism.
Output 2.1.2. Facilitators are trained in CCA practices and strategies, gender and nutrition issues	**S**	Targets have been met overall. The action has strengthened the human capital of partner institutions and organizations. However, the training of new master trainers has not been achieved.
Output 2.1.3. Farmer Field Schools (FFS) are established or strengthened to integrate CCA practices into production systems and training of farmers	**MS**	The planned number of FFS has not been achieved. Some have been operational for only one year, others were established late and are not secured.

GEF criteria/sub-criteria	Note	Comments
Output 2.1.4. Dimitra Listeners' clubs (Dimitra clubs) are established and empowered to allow networking of field schools	**MS**	Achievement rate has exceeded the target. Dimitra clubs play an important role in consulting and addressing the socioeconomic problems of communities. They promote the participation of youth and women. However, Dimitra clubs have not been systematically set up in the FFS/APFS zones in the Ferlo of Matam area. They do not include people with disabilities.
Output 2.1.5. Good practices and lessons learned for better adaptation to climate risks are capitalized on and disseminated at the local level	**MS**	Good practices have been selected and capitalized on through ANCAR but dissemination is relatively limited.
Output 2.2.1. Agrosylvopastoralist organizations are strengthened through the adoption of new CCA technologies and innovations as well as improved production and value chains	**MS**	Many farmers' organizations strengthened, IGAs supported, but the benefits of accompanying measures to facilitate the adoption of good practices are sometimes limited (late availability of equipment, fodder crops, cuttings, inputs for the manufacture of multinutrient blocks, non-availability of seeds at the local level, lack of water control equipment).
Output 2.2.2. At least one farmer per field school multiplies and markets climate change-adapted seeds with high nutritional value	**MU**	Few certified seeds have been produced and these are not marketed. The late availability of seeds and inputs and the fact that some farmers' organizations are not accredited for seed multiplication have hindered the achievement of this output
Output 2.2.3. New adapted varieties of cereals, fruits and vegetables and fodder species are introduced in the intervention areas to improve the food and nutrition security of the population	**MS**	Varieties of cereals, fruits and vegetables and fodder species have been effectively promoted in the area. However, the availability of and access to seeds at the local level remains a challenge.
Output 2.2.4. Land-use plans and management plans for grazing areas and livestock rangelands are strengthened with the participation of farmers' and pastoralists' associations and local authorities	**S**	Many efforts have been made to characterize and support pastoral units. Partner projects and non-governmental organizations have used the results to develop land-use and action plans. The sustainability of funding for the implementation of management plans and land use plans at the level of pastoral units is not guaranteed.
Output 3.1.1. Awareness modules for decision makers have been developed and institutional capacities have been strengthened to integrate CCA into policies, programs and projects, based on the school-field approach	**S**	Significant efforts have been made (training, mechanisms, platforms) at different levels to ensure the integration of CCA into sectoral and municipal development policies.
Output 3.1.2. A high-level cross-sectoral group is set up in order to define and adopt the CCA and resilience action plan to be integrated into policies, programs and projects	**S**	The project supported the COMNACC reform process in an inclusive and participatory manner. The results of the work were approved during a national validation workshop and the draft reform decree was prepared and submitted to the Ministry in charge of the environment. However, administrative bottlenecks are delaying the signing of the decree.
Output 3.2.1. A national climate resilience fund is created through an open window at one of the existing funds	**MS**	The fund is officially created, its architecture is set up and financial resources are mobilized. About ten projects have been financed. However, administrative bottlenecks, from the signing of the MOU and the replenishment of the fund to the selection of sub-projects, have delayed the financing of sub-projects and the implementation of investments in the field. In addition, the mechanism for doubling the fund is not effective.
Output 4.1 A systematic field data collection system to monitor project outcome indicators is operational	**MU**	The project has not implemented a system for collecting data on outcome indicators.
Output 4.2 Mid-term and final evaluations have been conducted	**HS**	The mid-term and the final evaluations have been carried out.
Output 4.3 A communication strategy has been developed	**S**	Several knowledge products were developed without reference to a communication strategy.
B1.2 Progress towards project effects and objectives	**MS**	
Effect 1.1 Strengthened and systematized knowledge and capacities to collect, analyse and disseminate agroclimatic data to improve local climate change adaptation practices and	**S**	Knowledge and capacity have been improved, strengthened and have guided the design of training materials. However, dissemination to other development stakeholders is limited.

GEF criteria/sub-criteria	Note	Comments
identification in selected eco-geographical areas of CCA innovations/practices that can be scaled up		
Effect 2.1. Use/adoption of agroclimatic information, innovations and climate change adaptation practices by agrosylvopastoral producers	**MU**	The level of use and adoption of climate information practices is not monitored (lack of surveys to track outcome indicators). Field visits confirmed the use of climate information. However, in some cases, climate information is no longer transmitted (sylvopastoral zone, Ranérou). The adoption of CCA innovations and good practices also faces certain technical and financial challenges.
Effect 2.2. Increased household incomes and agricultural and pastoral productivity of field school participants, thanks to the use of CCA practices and agrometeorological information and to the improvement of the value chains of agricultural and livestock products	**MU**	Lack of household income surveys. Conditions for improving beneficiaries' incomes are not met (adoption of good CCA practices is not effective due to: i) the late establishment and low level of operation of FFS and APFS; ii) technical and financial challenges related to the use of innovations and technologies disseminated; iii) the use of agroclimatic information; iv) micro-projects financed by the climate resilience fund that are only in their first year of operation; v) the development of IGAs, which is hampered by the absence and/or late establishment of accompanying measures (equipment, infrastructure, inputs).
Effect 3.1. Mainstreaming of the CCA dimension into national policies, strategies and programs, moving from a reactive response to a proactive approach	**MS**	The project has contributed to the development of a guide for planning and budgeting local development financing that integrates climate change, migration, gender and nutrition. The guide has been tested in two municipalities, the lessons learned have been capitalized on and are being expanded to other municipalities. The Ministry in charge of local development has approved and adopted the guide. However, the project has not succeeded in integrating CCA into the National Agricultural Investment Programme for Food Security and Nutrition, which is currently being developed. Furthermore, the evaluation did not find evidence of CCA integration into development projects.
Effect 3.2. A national climate change resilience fund has been established within an existing financing mechanism to support climate change adaptation activities at the local level	**MS**	The fund is set up and the financing of 10 micro-projects of farmers' organizations is carried out in a participatory manner. However, there has been a delay in the establishment of the fund and the achievement of investments due to administrative bottlenecks. Moreover, the strategy of doubling the fund is not effective.
Effect 4. Implementation of the project based on results management and applying lessons learned from the project in future actions	**MS**	The project has put in place a mechanism to coordinate and monitor implementation. However, its effectiveness is limited by the absence of a monitoring and evaluation specialist and a monitoring and evaluation system for collecting and analysing data to draw lessons and guide decision-making.
Overall rating of progress towards objectives/effects	**MS**	
B1.3. Probability of impact	**UA**	No survey or impact monitoring data.
C. EFFICIENCY		
C1. Efficiency[1]	**MS**	The efficiency of the project is limited by: i) the slow procurement procedures; ii) the signing of MOUs; iii) the size of the intervention area; iv) the lack of coordination, synergy and harmonisation between partners' interventions.
D. SUSTAINABILITY OF PROJECT OUTCOMES		
D1. Overall probability of sustainability risks	**ML**	There are significant risks to the sustainability of project outcomes. The suspension of FFS and APFS following the end of the project and the lack of plans to access improved seeds are the most significant risks.
D1.1. Financial risks	**MU**	Partner institutions in the field have a portion of the budget to carry out certain activities. However, most of the budget is not allocated (ANCAR). Some activities had already stopped with the end of funding; this is the case for some multidisciplinary working groups and the facilitation of FFS and APFS. The absence of a mechanism for doubling the climate resilience fund does not guarantee the

GEF criteria/sub-criteria	Note	Comments
		extension of funding to other preselected micro-projects. The late start-up of financed micro-projects and the constraints in the implementation threaten their profitability and their ability to be autonomous.
D1.2. Socio-political risks	**L**	Measures planned to contain social risks have been applied (inclusion, dialogue, focus on the needs of communities, etc.). However, project implementation may lead to other social risks, notably the coexistence of Dimitra clubs and VSLA funds in the financial management of contributions.
D1.3. Institutional and governance risks	**ML**	The delay in signing the Order on the COMNACC reform, the lack of clarification of the roles and responsibilities of ANCAR and FNDASP in the process of institutionalising and/or internalising FFS/APFS, the low level of ownership by DRDRs and the RNFS/IPPM in the monitoring of FFS/APFS are institutional and governance risks.
D1.4. Environmental and social risks	**L**	The project does not present any environmental risks for the future.
E. FACTORS AFFECTING PERFORMANCE		
E1. Project design and preparation[2]	**S**	The project design and preparation are based on a participatory and inclusive approach, based on evidence and focused on clearly identified problems. However, the lack of a monitoring and evaluation expert is a shortcoming in the project design, as are the size of the intervention area compared to the size of the project team and the lack of a decentralized mechanism for coordinating interventions.
E2. Quality of implementation	**MS**	
E2.1 Quality of FAO implementation (Budget Officer, Lead Technical Officer, Project Task Force, etc.)	**MS**	The FAO team at HQ (Lead Technical Officer, FAO-GEF Unit) provided technical and financial support and assistance to the project. However, delays in the signing of MOUs and procurement procedures, combined with the COVID-19 situation, which led to the suspension of supervision missions, have limited the quality of implementation.
E2.2 Project supervision (Technical Steering Committee, Project working group, etc.)	**MS**	Project supervision is limited by: the early termination of the steering committee, which only functioned for the first few years; and the absence of an oversight body for interventions at the regional level.
E3. Quality of project execution	**MS**	
E3.1 Project management and execution arrangements (PCU, Financial Management)	**MS**	The PCU has demonstrated a proactive and committed approach to partnership development, stakeholder involvement and participation, and implementation planning and monitoring. However, its limited staffing, the lack of a monitoring and evaluation expert, the wide area of intervention, and the plurality of partners mitigated its effectiveness.
E4. Financial management and co-financing	**HS**	The co-financing implementation rate is 113%. The level of co-financing implementation as of 31 June 2021 is 113% or USD 27.8 million (31 June 2021) compared to USD 24.6 million initially planned for the project, an increase of 13%. All financial contributions from partners through the PASA/LouMaKaf, Senegalese Agency for Reforestation and the Great Green Wall, PAFA-E, P2RS, and PADAER projects, have been implemented at 100%.
E5. Project partnerships and stakeholder engagement	**MS**	The targeting of partners is consistent. The engagement of implementing partners is also satisfactory. However, the project has not been able to trigger a real multistakeholder dynamic based on harmonisation, synergies of action and coordination of interventions. The project has not developed partnerships with DRDRs, even though they are responsible for supervising and coordinating all rural development interventions at the regional level.
E6. Communication, knowledge management and knowledge products	**MS**	Many ad hoc communication activities have been carried out (workshops, meetings, guidance documents, video films and

GEF criteria/sub-criteria	Note	Comments
		documents, posters, document sharing) but they are not part of a clear communication and capitalisation strategy.
E7. Overall quality of monitoring and evaluation	**MS**	During the design phase, aspects related to monitoring and evaluation were taken into account and budgeted for. However, during implementation, there were many shortcomings: lack of surveys to monitor outcome indicators, lack of databases, lack of harmonisation and lack of quality in the partners' reporting.
E7.1 Monitoring and evaluation design	**MS**	The results chain is well designed, roles and responsibilities are well defined, and resources are provided for the key monitoring and evaluation activities. However, there is no monitoring-evaluation manager.
E7.2 Implementation of the monitoring and evaluation plan (including financial and human resources)	**MU**	Lack of staff dedicated to monitoring and evaluation: the monitoring of effects as well as the learning component was lacking during implementation. In the project implementation reports, the values of the outcome indicators reported were not based on rigorous evidence.
E8. Overall evaluation of factors affecting performance	**MS**	Factors affecting project performance were rated as Moderately Satisfactory. Many factors affected project performance. The COVID-19 pandemic has severely hampered the implementation of the project over the past two years. The involvement and participation of all stakeholders during the project preparation and design fostered their commitment and facilitated project implementation. On the other hand, the wide and dispersed nature of the project intervention areas slowed down its implementation and effectiveness
F. CROSS-CUTTING CONCERNS		
F1. Gender and other equity dimensions	**S**	Gender was taken into account in project design in the statement of outcome indicators. During the implementation, some activities such as the Dimitra clubs increased the participation and economic power of youth and women. However, people with disabilities are not specifically targeted in the Dimitra clubs.
F2. Environmental and Social Safeguards	**HS**	The overall objective of the project addresses this concern. It is reflected in the choice of the intervention area and the set of activities proposed. The evaluation team had access to the initial classification and that of the mid-term review, which was considered Moderately Likely. This same classification was maintained. No actions that increase environmental and social risk were found; on the contrary, the achievements were related to environmental sustainability (sustainable land management, reforestation, use of organic products).
OVERALL RATING OF THE PROJECT	**MS**	

Notes: [1] Includes cost effectiveness and timeliness.

[2]Factors to be considered here are those affecting the ability of the project to start as planned, such as sufficient capacity of implementing partners at the kick-off of the project

Acronyms used: CCA (climate change adaptation); IGA (income-generating activity); ANACIM (National Agency of Civil Aviation and Meteorology (ANACIM); VSLA (Village Savings and Loan Association); ANCAR (National Agency for Agricultural and Rural Council); FFS (Farmer Field School); APFS (Agropastoral Field School); COMNACC (National Committee on Climate Change); COVID-19 (Coronavirus Disease 2019); CSE (Ecological Monitoring Centre); DRDR (Regional Directorate of Rural Development); FAO (Food and Agriculture Organization of the United Nations); GEF (Global Environment Facility); FNDASP (National Agrosylvopastoral Development Fund); IPPM (Integrated Production and Pest Management); PAFA (Agricultural Value Chain Support Project); PASA (Food Security Support Project); PRAPS (Regional Sahel Pastoralism Support Project) P2RS (Multinational Programme to build Resilience against Food and Nutrition Insecurity in the Sahel); PADAER (Support to Agricultural Development and Rural Entrepreneurship Programme); RNFS (National Network of Facilitators of Senegal); PCU (Project Coordination Unit).

Appendix 3. Results matrix

Chain of results	Indicators	Reference situation	Mid-term objective of the project	End target of the project	Mid-term level	End level of the project	Achievement rating[1]	Justification of rating
Objective/Impact of the project: Improve the food security and nutrition of agrosylvopastoral communities through the development of livelihoods resilient to climate change effects.								
Component 1: Development and refinement of CCA strategies and tools based on improved or new knowledge in agrosylvopastoral systems.								
Effect 1.1: Strengthened and systematized knowledge and capacities to collect, analyse and disseminate agroclimatic data to improve local climate change adaptation practices and identification in selected eco-geographical areas of CCA innovations/practices that can be scaled up.	A system for collecting, analysing and exchanging agroclimatic data is in place and operational at the national and local levels (LDCF AMAT Indicator 2.1.2.1).	There are currently only three local Multidisciplinary Working Groups (MWGs) covered by ANACIM for the transmission of climate information and the national MWG does not cover CCA.	17 local MWGs are established and the national MWG is revitalized and adapted to local MWGs.	The 17 local MWGs and the national MWG are functioning well.	Eight local MWGs and the national MWGs are functioning well.	11 out of 17 MWGs are established. Eight good CCA practices are identified. Agro-climatic information is collected, analysed and transmitted to beneficiaries in the form of voice messages, texts, newsletters and radios.	S	The targeted number of MWGs has not been achieved. Following the end of the protocol with ANACIM, MWGs ceased to function and the beneficiaries no longer receive agroclimatic information.
	Agroclimatic information in the form of agricultural advice specific to the targeted zones is available to agrosylvopastoralists at the level of the field schools and local working groups (MWG) (LDCF AMAT Indicator 3.1.1.1).	Currently there is no data that is accessible to the understanding of agrosylvopastoral producers. The information is developed for the central level.	Agroclimatic and CCA information is adapted to the understanding of agropastoralists.	Agroclimatic and CCA information is adapted to the understanding of agropastoralists and is available in field schools.				
	At least four CCA practices are identified per specific area (including management							

Chain of results	Indicators	Reference situation	Mid-term objective of the project	End target of the project	Mid-term level	End level of the project	Achievement rating[1]	Justification of rating
	plans and land use plans), discussed and validated by agrosylvopastoral producers.							
Component 2: Capacity building and dissemination of CCA strategies, technologies and best practices to small-scale agrosylvopastoral producers through a growing network of field schools								
Effect 2.1: Use/adoption of agroclimatic information, innovations and climate change adaptation practices by agrosylvopastoral producers.	At least 25% of farmer organizations participating in field schools use climate information and disseminated climate change adaptation and resilience practices/technologies (LDCF AMAT Indicator 3.1.1).	Climate information and CCA tools are not widely available to farmers' organizations in the project intervention areas.	10% of farmer organizations that participate in FFS use climate information.	25% of the trained pastoralists have adopted CCA practices.	18% of farmers trained through FFS and APFS use climate information.	The project did not conduct formal representative surveys to assess the level of achievement of this outcome.	MU	Field interviews show that the disseminated CCA technologies and practices are poorly adopted due to technical and financial constraints, local availability of inputs/equipment, etc.
	25 000 people (40% of whom are women and youth) are directly affected by the project (LDCF AMAT Indicator 3.1.1.2).	Climate resilience activities initiated by some projects (InfoClim, CCAFS) are not scaled up.		25 000 people (40% of whom are women and youth).		The project does not have databases to monitor achieved targets.	MU	Farmers, agropastoralists, youth and women have benefited from the project's support, however, the following elements have limited the achievement of this indicator: i) the insufficient number of FFS and APFS; ii) the late implementation of the climate resilience fund; iii)

Chain of results	Indicators	Reference situation	Mid-term objective of the project	End target of the project	Mid-term level	End level of the project	Achievement rating[1]	Justification of rating
								the absence of a doubling of the climate resilience fund; iv) the non-functioning of some Dimitra clubs and IGAs.
	At least 10 action plans of farmers' organizations integrate CCA strategies.			Ten action plans of farmers' organizations integrate CCA strategies.		In the groundnut basin and in eastern Senegal, nine action plans from 27 farmers' organizations integrate CCA strategies. In the sylvopastoral zone, eight farmers' organizations have set up, facilitated and monitored APFS.	MS	CCA strategies are integrated into the action plans of farmers' organizations, but these plans are not implemented due to a lack of financial resources.
Effect 2.2: Increased household incomes and agricultural and pastoral productivity of the participants in the field schools, thanks to the use of CCA practices and agrometeorological information and to the improvement of the value chains of	i) Income of project-supported households increased by at least 20% (LDCF AMAT Indicator 1.3.2); ii) Agricultural and livestock productivity increased by 25% (LDCF AMAT Indicator 1.2.8).	The livelihoods of people in the intervention areas are limited and malnutrition rates are high. The organization of production chains initiated by the PAFA has not been extended to the sylvopastoral	60% of pastoralists trained in the farmer field schools have adopted weather forecasting tools and apply good CCA practices.	100% of targeted pastoralists trained have adopted weather forecasting tools and increased their income by at least 20%.	Completion of an initial survey of 650 households in the groundnut basin and eastern Senegal and 209 households in 13 pastoral units in the sylvopastoral	No formal surveys carried out on the adoption of weather forecasting tools and increased income.	MU	Interviews show that beneficiaries have used weather information, however this is no longer available following the end of the protocol with ANACIM. No survey was conducted on the evolution of

Chain of results	Indicators	Reference situation	Mid-term objective of the project	End target of the project	Mid-term level	End level of the project	Achievement rating[1]	Justification of rating
agricultural and livestock products.		zone and the Eastern Senegal region.			zone, 65 farmers' organizations in 15 communes and identification of training needs.			beneficiaries' income in relation to the use of climate information.
Component 3: Integration of CCA strategies in a coordinated manner into policies, programs and projects, and development frameworks of the agrosylvopastoral production sectors at the national level and in the vulnerable areas of the project								
Effect 3.1: Mainstreaming of the CCA dimension into policies, strategies and programs, moving from a reactive response to a proactive approach	i) CCA strategies are integrated into at least 30% of agricultural, forestry and pastoral sector policies and programmes (LDCF AMAT Indicator 1.1.1.1). ii) At least 30% of agrosylvopastoral projects integrate CCA issues into their budgets (LDCF AMAT Indicator 1.1.1.2).	CCA strategies are currently limited to specific policies and programmes dedicated to the environment and sustainable development. Little cross-sectoral integration.	10% of agrosylvopastoral projects integrate CCA issues in their budget.	30 % of agrosylvopastoral projects integrate CCA issues in their budget.	The CCA strategy has been integrated into the national local planning and budgeting guide for a CCA integration into the Local Development Plan. Four national projects have integrated CCA into their activities (PASA and PRAPS, P2RS; PARFA/PAFA-E (25%).	The local development planning guide integrates climate change. Budgeted action plans of COMRECCs have been developed. CCA is not integrated into sectoral agrosylvopastoral development policies and plans. This is also the case within project and programme budgets.	MS	The National Plan for Agricultural Investments and Food and Nutrition Security has not integrated CCA; the local development planning and budgeting guide integrating climate change has been successful. Only two COMRECCs have budgeted action plans.

Chain of results	Indicators	Reference situation	Mid-term objective of the project	End target of the project	Mid-term level	End level of the project	Achievement rating[1]	Justification of rating
Effect 3.2: Establishment of a national climate change resilience fund within an existing financing mechanism to support climate change adaptation activities at the local level.	At the end of the third year of the project, a fund (or window) mobilising twice the initial GEF contribution is operational.		The diagnostic report of the existing funds is prepared, discussed and validated. A fund/window is opened. An advocacy mechanism is put in place to double the fund's resources.	Financing is granted. The initial GEF contribution is doubled and partners to the fund are mobilized.	Study carried out to capitalize on experiences in financing agrosylvopastoral development. A memorandum of understanding with FNDASP to manage the climate resilience fund is underway.	Climate resilience fund established. However, the mechanism for doubling the fund is not effective.	MS	Ten micro-projects are financed by the climate resilience fund. However, delays in signing MOUs and mobilising funds have delayed the start of micro-projects. The mechanism for doubling the fund is not yet in place.

Note: [1] See scale in Appendix 4.

List of acronyms used: CCA (Climate Change Adaptation); AMAT (Adaptation Monitoring and Assessment Tool); ANACIM (National Agency of Civil Aviation and Meteorology); COMRECC (Regional Committee on Climate Change); CCAFS (Research Programme on Climate change Agriculture and Food Security); FFS (Farmer Field School); APFS (Agropastoral Field School); GEF (Global Environment Facility); FNDASP (National Agro-Sylvo-pastoral Development Fund); MWG (Multidisciplinary Working Group); LDCF (Least Developed Countries Fund); PAFA (Agricultural Value Chain Support Project); PARFA (Agricultural Value Chains Resilience Support Project); PASA (Food Security Support Project); PRAPS (Regional Sahel Pastoralism Support Project); P2RS (Multinational Programme to build Resilience against Food and Nutrition Insecurity in the Sahel).

Appendix 4. Rating system

Rating scale for outcomes

Rating	Description
Highly Satisfactory (HS)	*The level of achievements clearly exceeds expectations and/or no shortcomings have been identified.*
Satisfactory (S)	*The level of achievements clearly meets expectations and/or no serious shortcomings have been identified.*
Moderately Satisfactory (MS)	*The level of achievements more or less meets expectations and/or the shortcomings identified are of moderate severity.*
Moderately Unsatisfactory (MU)	*The level of achievements is slightly below expectations and/or no significant shortcomings have been identified.*
Unsatisfactory (U)	*The level of achievements is significantly below expectations and/or major shortcomings have been identified.*
Highly Unsatisfactory (HU)	*Only a negligible level of achievements has been reached and/or serious shortcomings have been identified.*
Unable to assess (UA)	*The information available is insufficient to assess the level of achievements*

Rating scale for factors affecting performance (assess each element separately, monitoring and evaluation is treated differently, see monitoring and evaluation scale)

Rating	Description
Highly Satisfactory (HS)	*No shortcomings have been identified and the quality of **implementation** or **execution** exceeds expectations.*
Satisfactory (S)	*No serious shortcomings have been identified and the quality of **implementation** or **execution** exceeds expectations.*
Moderately Satisfactory (MS)	*Some shortcomings have been identified and the quality of **implementation** or **execution** more or less meets expectations.*
Moderately Unsatisfactory (MU)	*Significant shortcomings have been identified and the quality of **implementation** or **execution** is slightly below expectations.*
Unsatisfactory (U)	*Major shortcomings have been identified and the quality of **implementation** or **execution** is significantly below expectations.*
Highly Unsatisfactory (HU)	*Serious shortcomings have been identified in the quality of **implementation** or **execution**.*
Unable to assess (UA)	*The information available is not sufficient to assess the quality of **implementation** or **execution**.*

Rating scale for monitoring-evaluation design and implementation (overall design of monitoring-evaluation, implementation of monitoring-evaluation is assessed separately)

Rating	Description
Highly Satisfactory (HS)	*No shortcomings have been identified and the quality of M&E design or implementation exceeds expectations.*
Satisfactory (S)	*No serious shortcomings have been identified and the quality of M&E design or implementation meets expectations.*
Moderately Satisfactory (MS)	*Some shortcomings have been identified and the quality of M&E design or implementation more or less meets expectations.*
Moderately Unsatisfactory (MU)	*Significant shortcomings have been identified and the quality of M&E design or implementation is somewhat below expectations.*
Unsatisfactory (U)	*Major shortcomings have been identified and the quality of M&E design and implementation is significantly below expectations.*
Highly Unsatisfactory (HU)	*Serious shortcomings have been identified in the design and implementation of monitoring and evaluation.*
Unable to assess (UA)	*The information available is insufficient to assess the quality of M&E design and implementation*

Rating scale for sustainability

Rating	Description
Likely (L)	*There is little or no risk to sustainability.*
Moderately likely (ML)	*There are moderate risks to sustainability.*
Moderately Unlikely (MU)	*There are high risks to sustainability.*
Unlikely (U)	*There are serious risks to sustainability.*
Unable to assess (UA)	*It is not possible to assess the impact and magnitude of sustainability risks.*

Appendix 5. GEF Co-financing table (USD)

Co-financing	Amount at planning stage	Total amount reported in the 2020 Project Implementation Report	Actual amount obtained as of 30 June 2021 (2021 Project Implementation Report)	Implementation rate (%)
Food Security Support Project Loumakaf	9 769 939	5 126 450	9 769 939	100
National Agency for the Great Green Wall	3 068 656	1 250 340	3 068 656	100
Agricultural Value Chain Support Project-E	3 321 254	66 425	3 321 254	100
Multinational Programme to Build Resilience to Food and Nutrition Insecurity in the Sahel	4 225 390	2 330 370	4 225 390	100
Support to Agricultural Development and Rural Entrepreneurship Programme	4 022 146	201 107	4 022 146	100
Food and Agriculture Organization of the United Nations	200 000	180 000	180 000	90
Agronomes et vétérinaires sans frontières	-	2 261 330	2 261 330	100
Regional Sahel Pastoralism Support Project	-	960 900	960 900	100
TOTAL	**24 607 385**	**12 376 922**	**27 809 615**	**113**

Sources: FAO. 2020. *Project implementation report.* Rome
FAO. 2021. *Project implementation report.* Rome.

Appendix 6. Project evaluation matrix

Evaluation questions	Sub-questions/indicators	Comment	Methods/informants
1. Relevance/Coherence:			
Have the project outcomes been consistent with: i) the GEF focal areas and operational programme strategies; and ii) national priorities and the FAO Country Programming Framework?	Level of alignment of project outcomes with GEF operational programme strategies, national priorities and FAO Country Programming Framework.	Assesses the relevance of the project to national needs and priorities and to those of GEF and FAO, and the consistency between the proposed actions and the achievement of the intended outcomes. They are evaluated from the design phase to the end of implementation to see if the project has adapted to context changes if necessary.	Methods/techniques: • Literature review • Individual interviews • Group interview • Triangulation of information Informants: • Various reports • Stakeholders: o Sponsor's team (FAO) o Management staff: project management team o Individual/collective direct beneficiaries o Other implementing partners: regional directorates/deconcentrated services, non-governmental organizations, farmers' organizations o Similar projects/programmes carried out in the same project areas
Was the project design appropriate to achieve the expected outcomes?	Quality level of project design		
What is the level of coherence of synergies between stakeholders (institutional, then implementing stakeholders)?	Level of coherence of synergies between stakeholders		
Has the relevance of the project changed since its design as a result of new national policies, plans or programs that affect the relevance of the original project objectives and goals?	Level of flexibility/adaptability of the project to the context during implementation.		
What is the level of coherence between the programme and its theory of change, indicators, expected/achieved outcomes?	Alignment/interdependence between the project, theory of change, indicators and expected outcomes.		
What is the added value of combining several interventions in a single programme? (Compared to the same level of investment through similar alternatives)	Positive effects of combining several interventions.		

Evaluation questions	Sub-questions/indicators	Comment	Methods/informants
2. Effectiveness			
To what extent have FAO interventions contributed to improving the food security and nutrition of agrosylvopastoral communities through the development of livelihoods resilient to climate change effects: 1. facilitating the use of agroclimatic information and the adoption of climate change adaptation practices by agrosylvopastoral producers; 2. improving the capacity of the agrosylvopastoral sector to cope with climate change by integrating climate change adaptation strategies into agrosylvopastoral development policies, programs and projects? To what extent does the actual outcome of the project match with the expected effects? What is the level of achievement of outcomes at the level of each output? What is the project's contribution to global environmental benefits, based on monitoring tools? Effect 1.1: To what extent has the knowledge and capacity to collect, analyse and disseminate agroclimatic data to improve local climate change adaptation practices	1. Status of activity implementation 2. Percentage achievement of outputs 3. Percentage achievement of outcomes 4. Percentage achievement of impacts 5. List of factors that helped or hindered the implementation and achievement of outcomes	Assesses and analyses the level of achievement of project activities, outcomes and objectives. Analyses the factors that contributed to or hindered the implementation and achievement of outcomes, effects and impacts.	Methods/techniques: • Document review (project document, project implementation report, reports, studies, monitoring tool, etc.) • Individual interviews • Group interview • Site visits • Triangulation of information Informants: • Various reports • Stakeholders: o Sponsor's team (FAO) o Management staff: project management team o Individual/collective direct beneficiaries o Other implementing partners: regional directorates/deconcentrated services, non-governmental organizations, farmers' organizations o Similar projects/programmes carried out in the same project areas

Evaluation questions	Sub-questions/indicators	Comment	Methods/informants
been strengthened and systematized? To what extent have innovations/CCA practices that can be scaled up been identified in the selected eco-geographic areas? Effect 2.1: To what extent have agroclimatic information, innovations and climate change adaptation practices been used/adopted by agrosylvopastoral producers? Effect 2.2: To what extent have household incomes and agricultural and pastoral productivity of the field school participants increased thanks to the use of CCA practices and agrometeorological information and to the improvement of the value chains of agricultural and livestock products? Effect 3.1: To what extent has the CCA dimension been integrated into national policies, strategies and programs, moving from a reactive response to a proactive approach? Effect 3.2: To what extent has the national climate change resilience fund been established within an existing financing mechanism to support climate change adaptation activities at the local level?			

Evaluation questions	Sub-questions/indicators	Comment	Methods/informants
3. Efficiency			
To what extent has FAO provided project identification, concept preparation, evaluation, preparation, approval and start-up, supervision? To what extent have risks been identified and managed?	Time period between the identification, preparation of the concept note, assessment, approval and start-up. Level of involvement and participation of stakeholders in the preparation, identification and supervision phase.	Carries out the overall assessment of project implementation and coordination, synergies, partners, consultation frameworks, administrative, financial and procurement management tools and procedures, etc. Assess the extent to which the resources deployed (time as well as human, material, financial resources) justify the outcomes achieved: cost-effectiveness analysis.	Methods/techniques: • Document review (project document, project implementation report, reports, studies, monitoring tool, etc.) • Individual interviews • Group interview • Site visits • Triangulation of information Informants: • Various reports • Stakeholders: o Sponsor's team (FAO) o Management staff: project management team o Individual/collective direct beneficiaries o Other implementing partners: regional directorates/deconcentrated services, non-governmental organizations, farmers' organizations o Similar projects/programmes carried out in the same project areas
How effectively did the implementing agency carry out its role and responsibilities related to project management and administration? (Distinguish between FAO's role as the implementer of project activities and as the executing entity)	Quality of the coordination, supervision, project implementation and monitoring mechanism. Level of synergies and partnership with existing stakeholders and projects. Number of supervision/monitoring missions. Existence of procedures manual, reporting templates. Level of technical assistance of implementing partners.		
How efficient is FAO in carrying out project procedures?	Timeliness of administrative, financial, procurement and contract implementation procedures.		
Was the project implemented efficiently in terms of resource mobilisation and use?	Number of co-financing arrangements. Percentage of mobilisation of co-financing resources.		
To what extent has the project sought to innovate with new approaches to facilitate implementation?	Lessons learned from previous experiences. List of innovative initiatives facilitating project implementation towards the achievement of outcomes.		
What is the level of communication among project stakeholders at the institutional and implementing levels?	Level of operation of the consultation frameworks set up at the national, regional and local levels (Steering Committee, local committees, regional committees, etc.). Level of harmonisation and synergies between stakeholders		

Evaluation questions	Sub-questions/indicators	Comment	Methods/informants
What are the difficulties encountered in project implementation with regard to the relationship between institutional and implementing stakeholders?	List of the main difficulties encountered in implementation in relation to institutional partners and implementing stakeholders.		
4. Sustainability			
How sustainable are the project outcomes, and how likely are they to be sustained beyond the end of the project?	Project exit strategy? What steps have beneficiaries taken to continue after the project? Level of adoption of good practices or innovations disseminated by the project. Level of integration of technologies, practices and instruments disseminated by the project into policies and programmes.	Assesses the level of ownership and sustainability of the project by partners and target groups. Assesses the extent to which the project has created conditions to sustain the outcomes achieved and the changes brought about. Assesses the ability of local stakeholders to ensure the sustainability of achievements. Analyses whether the conditions and factors for sustainability are in place.	Methods/techniques: • Document review (project document, project implementation report, reports, studies, monitoring tool, etc.) • Individual interviews • Group interview • Site visits • Triangulation of information Informants: • Various reports • Stakeholders: o Sponsor's team (FAO) o Management staff: project management team o Individual/collective direct beneficiaries o Other implementing partners: regional directorates/deconcentrated services, non-governmental organizations, farmers' organizations o Similar projects/programmes carried out in the same project areas
What are the main risks and elements that may affect the sustainability of the project benefits?	List of technical, political, institutional, environmental and social risks that may affect the sustainability of the project outcomes.		
To what extent have the benefits of the project been scaled up at the institutional level?	Number of outcomes, good practices, innovations that can be scaled up by beneficiaries or by other projects.		
What measures are in place in the context of COVID-19 to limit the effects of the pandemic on project activities?	List of measures put in place		
What are the potential mechanisms for replication at the country level in the sub-region (due to the resilience mandate of the regional office)?	List of outcomes that can be scaled up. List of conditions for scaling up outcomes.		

Evaluation questions	Sub-questions/indicators	Comment	Methods/informants
5. Elements affecting performance			
Monitoring and evaluation Does the monitoring and evaluation plan implement a practical and sufficient approach in its implementation? Did the monitoring and evaluation system work in accordance with the monitoring and evaluation plan? Was the information collected systematically using appropriate methods? Was the information from monitoring and evaluation system used appropriately in decision-making processes?	Existence of a functional monitoring and evaluation system. Human and financial resources allocated to monitoring and evaluation. Number, frequency and timeliness of reports submitted. SMART (specific, measurable, achievable, relevant, timely) nature of indicators. Data collection system. Existence of a database on beneficiaries and targets achieved.	Analysis of the quality, relevance, use and effectiveness of the monitoring and evaluation system and tools.	Methods/techniques: • Document review (project document, project implementation report, reports, studies, monitoring tool, etc.) • Individual interviews • Group interview • Site visits • Triangulation of information Informants: • Various reports • Stakeholders: o Sponsor's team (FAO) o Management staff: project management team o Individual/collective direct beneficiaries o Other implementing partners: regional directorates/deconcentrated services, non-governmental organizations, farmers' organizations o Similar projects/programmes carried out in the same project areas
Stakeholder engagement Were other stakeholders, such as civil society, Indigenous People or the private sector involved in the design or implementation of the project? What was the impact on project outcomes?	Level of involvement and participation of stakeholders in all stages of the project cycle. Added value from stakeholder participation and involvement.	Assesses the level of involvement of partners in project implementation.	Methods/techniques: • Document review (project document, project implementation report, reports, studies, monitoring tool, etc.) • Individual interviews • Group interview • Site visits • Triangulation of information Informants:

Evaluation questions	Sub-questions/indicators	Comment	Methods/informants

			• Various reports
			• Stakeholders:
			  ○ Sponsor's team (FAO)
			  ○ Management staff: project management team,
			  ○ Individual/collective direct beneficiaries
			  ○ Other implementing partners: regional directorates/deconcentrated services, non-governmental organizations, farmers' organizations
			  ○ Similar projects/programmes carried out in the same project areas

Environmental and Social Safeguards
To what extent have environmental and social concerns been taken into account in the design and implementation of the project?
Is the project's original classification of risk related to environmental and social safeguards still relevant?
Did the project help beneficiaries adapt to climate change?
	Status of environmental mainstreaming in the Project Document.
	Existence of environmentally sensitive indicators.
	List of environmental measures implemented.
	Current classification of environmental and social safeguard-related risks.
	List of outcomes achieved contributing to the resilience of the populations.
		Analysis of environmental mainstreaming.	Methods/techniques:
			• Document review (project document, project implementation report, reports, studies, monitoring tool, etc.)
			• Individual interviews
			• Group interview
			• Site visits
			• Triangulation of information
			Informants:
			• Various reports
			• Stakeholders:
			  ○ Sponsor's team (FAO)
			  ○ Management staff: project management team
			  ○ Individual/collective direct beneficiaries
			  ○ Other implementing partners: regional directorates/deconcentrated services,

Evaluation questions	Sub-questions/indicators	Comment	Methods/informants
			non-governmental organizations, farmers' organizations o Similar projects/programmes carried out in the same project areas
Gender and social inclusion To what extent have gender issues been taken into account in the design and implementation of the project? Has the project been implemented in a way that ensures gender-equitable participation and benefits?	Status of the inclusion of women, youth, people with disabilities, etc., in the Project Document. Existence of gender-sensitive outcomes, objectives and indicators. Level of involvement of women, young people, people with disabilities in consultations, training. List of outcomes achieved targeting women, youth and people with disabilities.	Analysis of the level of integration of gender and vulnerable populations.	Methods/techniques: • Document review (project document, project implementation report, reports, studies, monitoring tool, etc.) • Individual interviews • Group interview • Site visits • Triangulation of information Informants: • Various reports • Stakeholders: o Sponsor's team (FAO) o Management staff: project management team o Individual/collective direct beneficiaries o Other implementing partners: regional directorates/deconcentrated services, non-governmental organizations, farmers' organizations o Similar projects/programmes carried out in the same project areas
Co-financing To what extent has the expected co-financing materialized and has this affected outcomes?	List of co-financing arrangements. Forecast and achievements of co-financing per donor. List of activities carried out and outcomes achieved thanks to co-financing.	Analysis of the financial package and its impact on the project.	Methods/techniques: • Document review (project document, project implementation report, reports, studies, monitoring tool, etc.) • Individual interviews

Evaluation questions	Sub-questions/indicators	Comment	Methods/informants
			• Group interview • Site visits • Triangulation of information Informants: • Various reports • Stakeholders: o Sponsor's team (FAO) o Management staff: project management team o Similar projects/programmes carried out in the same project areas
Progress toward impacts To what extent can the demonstrated progress be attributed to the project? Has there been evidence of: 1. reduced environmental stress in terms of adaptation, 2. change in environmental status, 3. change in policy / legal / regulatory framework? Are there obstacles or other risks that could impede future progress in terms of impact?	Extent to which the project contributed to its expected impacts in terms of climate change resilience, integration of adaptation practices into policies, improved food security and income.	Analyses the cause and effect relationship between project activities and observed outcomes on the field.	Methods/techniques: • Document review (project document, project implementation report, reports, studies, monitoring tool, etc.) • Individual interviews • Group interview • Site visits • Triangulation of information Informants: • Various reports • Stakeholders: o Sponsor's team (FAO) o Management staff: project management team o Individual/collective direct beneficiaries o Other implementing partners: regional directorates/deconcentrated services, non-governmental organizations, farmers' organizations

Evaluation questions	Sub-questions/indicators	Comment	Methods/informants
			○ Similar projects/programmes carried out in the same project areas
Knowledge management How does the project evaluate, document and share its results, lessons learned and experiences? To what extent are communication products and activities likely to support the sustainability and scaling up of outcomes?	Existence of a functional capitalisation and communication mechanism. List of documents for the capitalisation of products. Communication and dissemination media for capitalisation documents developed. Number of beneficiary stakeholders.	Analysis of the system to capitalize on and share good practices and lessons learned from the project.	Methods/techniques: • Document review (project document, project implementation report, reports, studies, monitoring tool, etc.) • Individual interviews • Group interview • Site visits • Triangulation of information Informants: • Various reports • Stakeholders: ○ Sponsor's team (FAO) ○ Management staff: project management team ○ Individual/collective direct beneficiaries ○ Other implementing partners: regional directorates/deconcentrated services, non-governmental organizations, farmers' organizations ○ Similar projects/programmes carried out in the same project areas

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