WORLD FOOD PROGRAMME

PROJECT FOR ENHANCING COMMUNITY RESILIENCE AND FOOD SECURITY TO ADVERSE EFFECTS OF CLIMATE CHANGE IN MAURITANIA

PARSACC, Grant N° 70000159

FINAL PROJECT EVALUATION REPORT

September 2019

Consultants: Youssef Saadani and Mohamed Lemine Selmane

Preface

After five years of implementing the Project "*Enhancing the resilience of communities and their food security to adverse effects of climate change in Mauritania (PARSACC)"*, the World Food Program (WFP) entrusted the project final evaluation to an external mission composed of two independent consultants. It took place during the period from July 17 to September 27, 2019.

The mission benefited from the support of the WFP Country Office in Mauritania, the PARSACC project management unit (PMU), the national project director as well as the central technical directorates and regional services of the Ministry of the Environment and Sustainable Development (MEDD). The mission would like to thank all people we met, in particular the target communities of the project and particularly those who were visited, welcoming their collaboration and responsiveness.

Our gratitude also goes to the various people we met during the evaluation process at central and regional levels for the precious contribution made. We appreciate the excellent support we have received from all the staff of the PMU, administrative and technical staff from the regional delegations of the MEDD who have facilitated all of our work and made this evaluation easier.

Finally, our gratitude is expressed to the project partners, in particular the staff of WFP Country Office in Nouakchott and representatives of international technical cooperation and financial organizations operating in Mauritania.

The evaluation report faithfully reports the findings and the results of the analysis carried out with the various actors involved in both the design and the implementation of the programmed components of the project. The assessment was based on an analysis of the documentation produced by the project and the evidence made available to us by PMU and the various regional delegations and technical services of the MEDD concerned.

The evaluation mission tried to respond as best as possible to the terms of reference of the evaluation mission and to make available to managers and donors the assets and shortcomings with a view to capitalizing on the lessons learned.

Without a doubt, PARSACC seemed to us to be a pilot operation for the Adaptation Fund (AF) and the WFP in its design and its implementation methods. The lessons are diverse and rich and can even guide donors and technical support operators for better targeting and effective intervention in disadvantaged and vulnerable environments facing the effects of climate change. It would be very interesting to capitalize on the lessons learned from the project and make them available to different stakeholders.

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ACRONYMS

AAP	Adaptation Action Plan
AF	Adaptation Fund
AWP/B	Annual Work Plan and Budget
CES/DRS	Water and Soil Conservation/Soil restoration
CGV	Village Management Committees - Comité de Gestion Villageois
CSA	Food Security Committee - Commissariat à la Sécurité Alimentaire
CSLP	Strategic Framework to Fight Poverty - Cadre Stratégique de Lutte Contre la Pauvreté
DREDD	Regional Delegation for Environment and Sustainable Development -Délégation Régionale de l'Environnement et du Développement Durable
EWS	Early Warning System
GDP	Gross Domestic Product
GIZ	German Technical Cooperation
IGA	Income generating activities
MASEF	Ministry of Social Affairs, Childhood and Family
MEDD	Ministry of Environment and Sustainable Development
MEF	Ministry of Economy and Finance
NGO	Non-Governmental Organization
NPD	National Project Director
PANE	National Action Plan for the Environment and Sustainable Development
PARIS	Project to Support Irrigation in Sahel
PARSACC	Enhancing resilience of communities to the adverse effects of climate change on Food Security in Mauritania project
PC	Project Coordinator
PMU	Project Management Unit
PNDA	National Agriculture Development Programme
PRAPS	Sahel Regional Pastoralism Project
ProGRN	Natural Resources Management Programme
PSC	Project Steering Committe
SDG	Sustainable Development Goals
TFP	Technical and Financial Partners
TOR	Terms of Reference.
WFP	World Food Programme

EXECUTIVE SUMMARY

The Project - Enhancing resilience of communities to the adverse effects of climate change on Food Security in Mauritania (PARSACC) is the first project funded by the Adaptation Fund (AF) in Mauritania, implemented by the World Food Program (WFP) in close collaboration with the Ministry of Environment and Sustainable Development (MEDD) as executing entity.

Originally designed for a four-year period, the PRSACC was extended at mid-term by one additional year (2014-2019) and with a total Adaptation Fund contribution of US $ 7,803,605, equivalent to 273,126 MRU. The co-financing of the Mauritanian government amounts to 578.044 US Dollars (ie 7.4% of the overall cost of the project). The national budget of the State mainly finances the taxes and the running costs of the project.

The Project has been managed by a Project Management Unit (PMU) housed within the MEDD with a small coordination and support team. In its initial design, PARSACC aims to contribute to better environmental governance, management and knowledge sharing on climate change at different levels. The Project supported community mobilization and participation in the 8 target Wilayas to adapt to the effects of this phenomenon and improve their precarious resilience and food security. In addition, the project's intervention is likely to strengthen the decentralization process in the country and support the implementation of national adaptation and environmental protection strategies and programs.

At the end of the project and after five years of implementation, a final evaluation of the project was entrusted to a team of experts (International Expert and a national expert) during the period 17 July to 27 September 2019.

The Project's final evaluation approach complied with the Terms of Reference (ToR) and the guidelines provided by the Adaptation Fund. The evaluation mission worked closely with the project implementing entity, the World Food Program (WFP) in Nouakchott and the Project Management Unit (PMU). Overall, the methodology adopted has kept some flexibility between the different levels of analysis at the national, regional and local levels. In addition to the review and analysis of the rich project documentation, including the project proposal report as well as the documents produced by the Project Management Unit, exchange and consultations with the various partners and operators involved at different levels were conducted before and after the field visits. The field visits were occasions to conduct participatory evaluation with communities and regional leaders and institutions with a visualization of achievements and appreciation of their effects and sustainability. The conclusions were shared with the Project Unit (PMU) and the staff involved in the implementation before finalization.

The final review of the project resulted in a set of conclusions and practical lessons based on achievements, their effects and sustainability. The analysis of the project design, implementation conditions and achievements have led to capitalizing lessons learned and drawing conclusions to improve the design and planning of more resilient and sustainable adaptation measures. These measures must reconcile imperatively between the urgent needs of communities and the sustainable management of natural resources in a context of climate change.

Despite an initial period of at least 18 months aimed at putting into place the conditions for implementation, the project has achieved its main objectives. The initial investment in sensitization, field team building, capacity building at different levels and the development of the Adaptation Action Plan (AAP), allowed the project team and its partners to gradually gain experience and maturity. The year of extension of the project duration has strongly contributed to the realization of the various adaptation measures retained in the AAPs. Almost all activities and targets readjusted by MTR are achieved. The participation of the communities is also remarkable with a strong involvement of women varying between 50 and 75% depending on the type of activity. In this regard, the strong involvement of target communities, especially the most vulnerable households should be strongly mentioned. The Project activities have contributed significantly to improving the means of production of over 32,000 or 192,000 individuals while increasing their resilience to the negative effects and impact of climate change.

Currently, the main challenge for Mauritania is to engage in a process of rational management of fragile natural resources in a context of challenging climate change. The restoration of natural ecosystems remains on the agenda with the diversification of bases and means of production and the identification of sustainable solutions to structural problems of production. The project has contributed in a satisfactory way to advance solutions, operational or even innovative, in perfect coherence with the improvement of the food security, the increase of the standard of living as well as the income generating of the communities and the most vulnerable rural populations. On the other hand, the project has supported initiatives to improve the conservation of natural resources in the territories of the 85 villages of the 8 most vulnerable Wilayas in the South and South-East of the country.

PARSACC has actually designed and implemented adaptation measures to the effects of climate change reconciling technical measures for the rational management of natural resources and the promotion of income-generating activities (IGAs) that respond to the urgent needs of partner communities. Such an approach, successfully tested by PARSACC, is a major methodological gain to capitalize and disseminate on a large scale in the country and elsewhere under similar conditions.

With the training and capacity building of more than 80 executives and technicians of the MEDD, the project reinforces the capacities of this main national institution in the concretization of the decentralization process initiated in the country since 1986 and the implementation of the National Adaptation Plan of Action (NAPA). In fact, the new Project "Development of an Improved and Innovative Management System for Climate Change Resilient Livelihoods in Mauritania-DIMS" which started in 2018 was strongly inspired by PARSACC and relay on the same regional teams.

Despite the mobilization of a limited technical team of project management, composed of three senior managers, the project has overcome this deficit in human resources and effectively manage the resources made available. Certainly, there are gaps in the mobilization of partnership around the project and some weaknesses in the regular monitoring of programs and

achievements. However, this did not affect the effectiveness and efficiency of the project, which is considered satisfactory, given the level of achievement of project objectives and results in line with the allocated budget.

The project managed the participatory process successfully, with good involvement and participation of the partner communities. Assisted from the mid-term review by twenty (20) NGOs, the PRSACC team supported the development and implementation of adaptation action plans in 85 villages. These planning / programming tools introduced are a major achievement. They helped strengthen the social cohesion of the targeted communities. In addition, they have raised awareness at different levels of environmental issues at local and regional level.

With the diversification of income sources and cash-for-work provided, the project has maintained some operational flexibility with a direct impact on rural poverty, especially among the most vulnerable groups (women in particular). This has improved income and food security for nearly 12000 households by the distribution of cash motivation for a total amount of 31,817,019 MRU which mean an income of 2,836 MRU by household.

With an efficient use of the resources made available, the project has achieved the majority of its initial targets and an allocated budgetary consumption. Overall, the management is considered satisfactory with a strong focus to put to the assets of the project as to the development of staff capacities in the central and decentralized institutions involved. The project has contributed significantly to strengthening the government's vision, policies and strategies for poverty alleviation, food security and adaptation to climate change impacts.

Upon completion of the project and after five years of implementation, the technical, social and environmental benefits are remarkable. Communities, through their CGV have been systematically involved. Innovations are introduced gradually according to the maturity of these young and emerging social organizations. Village banks are promoted and managed locally by the community members (fees, market gardening, management of shops, poultry barns, butchery, etc.) without major problems. Various management methods are applied leading in the majority of cases to strengthening solidarity and social cohesion (management rotation).

However, given the insufficient degree of maturity currently attained by the innovative initiatives introduced by PARSACC, sustainability remains fragile. Close support of these promoted initiatives is absolutely necessary in response to the weak capacity at the community level to accompany the innovations introduced in the project (For example, the management of vegetable gardens, application of flexible management rules, management of community funds, marketing of products). This is all the more true insofar as the permanent structures of the State (other Ministries) are weak and lack financial and material resources to take over the project interventions.

In terms of overall impact of the project on women, gender equality and women's empowerment are satisfactory to very satisfactory. The representation of women in the GTCs in most cases exceeds the 50% with a strong participation in meetings and speaking their voices. Women are now more empowered by improving their well-being and reducing their daily workload (improved furnace introduction, direct benefits managed by some project activities) and by

facilitating access to means of production. (market gardening and poultry farming with more than 95% of women involved). At least 17,605 women were involved in capacity development and knowledge acquisition, accounting for 65% of the total and almost 51% of beneficiaries of diversified activities promoted per project (36,700 women in total). Thus, the project placed great importance on the criteria of gender equality and women's empowerment.

Finally, at the institutional level, PARSACC is one of the first AF investment operations and a first project implemented in collaboration with the World Food Program (WFP). The performance of the collaboration between WFP and the Government is considered satisfactory. The Government and the partners have followed a course of action reinforcing mutual exchange and consultation for the good execution of the project. The PMU was gradually formed and worked in perfect harmony with the MEDD and the other actors involved. Overall, the project has been managed under good conditions, despite the disruptions caused by the mobility of the Regional Delegates for the Environment and Sustainable Development (DREDD) and the lack of support staff at various levels. The project management has kept a certain flexibility both in the methodological approach and in the implementation of its components based on the technical quality of the team mobilized.

Although the commitment and support of the government structures was satisfactory at the start of the project, the mobility of regional delegates and the limited regional capacities is still a serious issue. Attention is drawn to the need to capitalize on project achievements for the good of the country. Investments and micro projects realized should be supported and consolidated in a perspective of institutional sustainability.

At the end of the project and after one year of extension of the implementation, the assessment of the physical execution of the three components of the project is very satisfactory. All targets are met, apart from the grain bank creation activity that was canceled at mid-term review. Besides, the implementation of grain bank in Mauritania did not give the expected results because of management problems. The project has suffered the consequences of the more or less long period of more than 12 months to meet the conditions for starting the project. The time spent on sensitization, field team training, site targeting and the development of AAPs has been a heavy burden for the PMU to start field operations. This delay was overtaken by the commitment and dynamism of the project team and external support (NGOs and supporting consultations).

Component 1 - Support the technical services and communities they serve to better understand climate risks, their impacts on resources and food security and facilitate decentralized and participatory adaptation planning - The majority of planned activities are carried out in good conditions with a slight delay in the activity of collaboration and support to the 9 regional and local radio stations in the 8 Wilayas targeted. In terms of training and capacity building, the project provided training to more than 303 people in various fields related to social vulnerability and natural ecosystems facing the effects of climate change. A focus on participatory identification of concrete adaptation measures resulted in 84 AAPs (84% of the

initial target and 97% of the mid-term adjusted target) and more than a third of which are of good quality.

In accordance with the capacity building rules, among the 303 people trained, 15% are women at different levels. These trainings concerned 40 managers and technicians at the central level, 88 technicians and agents at regional level, 150 representatives of NGOs, 25 journalists and nearly 34 local cooperatives. This effort is very significant and deserves consolidation, particularly at the local and community levels.

C**omponents 2 and 3 - Design and implementation of concrete adaptation measures** identified (related to desertification and soil degradation) and the design of concrete adaptation measures focused on the diversification of sources of income and resources production among the most vulnerable target groups. PARSACC has managed to develop and implement a diversified technical package, with even innovations, with direct and short-term benefits for communities and local populations. These two components were conducted in a perfect conciliatory synergy between traditional technical measures for the protection of natural resources and the promotion of local initiatives to improve the incomes of populations in the short term. This is the case for the range of income-generating activities (market gardening, semi-intensive chicken coopers, shops, fattening units, mill grain essentially). At least 97 IGAs are promoted and 41 cooperatives supported to manage nearly 100 ha of market gardening, affecting more than 6,633 women out of a total of 8 728 beneficiaries (a rate of 76%).

In terms of technical adaptation measures, all revised mid-term targets are met with satisfactory quality apart from water and soil conservation (CES). These totaled 440 ha, which represents 88% of forecasts with a variable technical quality, for lack of close monitoring. The tree planting programs has had some difficulties in managing young plantations, affecting the success rate, which was around 50-60%. Also the distribution of improved ovens, much appreciated by the populations with a gain estimated at more than 50% of the consumption of wood, concerned only 20 600 improved furnaces distributed on an initial forecast of 30 000 (a rate of realization 69%) and the training of 179 local craftsmen out of the 2000 planned. At the level of the promotion of beekeeping, the activity was successful in 04 sites on the 08 villages targeted (success rate of 50%) for social reasons related to the lack of know-how and specific techniques of driving apiaries and transhumance.

All these technical achievements in direct connection with concrete measures of adaptation have created a real local dynamic with a strong social cohesion. Their impact is significant and visible on the increase of income and the food security of the poorest households. It is remarkable how the collective management of the operations promoted in the project framework (market gardening, store management and fattening units). The case of creation of community funds around the management of IGA and shops is a remarkable success of the project to highlight.

The financial execution of the project has progressed over time with an acceleration from the 3rd year of implementation. The project's commitments to the communities and the partners

involved are in vast majority honored. Overall, the project is performing satisfactorily in line with the expected results.

Ultimately, it can be concluded that the initial design of the project was correct with some overestimation of certain targets (dune fixing work and related unit costs, training of artisans in improved kiln and number of units to be distributed, especially). All of the proposed adaptation measures are relevant and respond to local needs, apart from the one related to the creation of grain banks whose implementation conditions have proved very difficult in the current context of the country. Moreover, the management of the project, the organization of work within the PMU and with the partners involved as well as the collaboration with the permanent structures of the government are satisfactory.

We appreciated the commitment of the communities with a very strong participation of the women in all the activities promoted by the project but also in the representative structures of the affected villages (more than 50% in the local committees). They are also actively involved in the management of the community funds promoted in the project and carry innovative ideas.

However, in view of these many achievements, the sustainability conditions of these investments are not met for the moment. It is to be feared, in the absence of the continuation of an adequate support of these young structures of village organization, of the management of the innovations introduced by the project (village funds, regulations of exploitation of the defenses, vegetable gardens, store management and other IGAs) that current gains are weakened and lost. In our opinion, a second phase of support and consolidation of learning is highly recommended. This would allow the preparation of the desired institutional transition and ensure sustainability of the investments.

I. GENERAL CONTEXT

Administratively, Mauritania is subdivided into 15 wilayas (regions) including three in Nouakchott, the capital, 56 Moughataas (Departments), and includes 220 communes.

According to the last general census of population and housing carried out in 2013, the population of Mauritania amounts to 3,537,368 people (50.8% of whom are women) with an annual growth rate between 2010 and 2013 of 2.77% and a density of 3.2 inhabitants/Km² with significant disparities between the regions.

The country has a very pronounced agro-sylvo-pastoral vocation, due to the immensity of its territory and the way of life of its populations. Most of its natural resources are concentrated in its southern part where the potential is still enormous but increasingly threatened by the effects of drought and human action.

The landscape is characterized by the presence of the Assaba, Tagant and Adrar mountain ranges, which peak at 400 and 500 meters. With the exception of the alluvial plain of Senegal river, called ″Chemama″, 10 to 25 km wide, the rest of the country is largely composed of dune alignments, such as those of the large region of sand that extends east of Tagant and Adrar.

The majority of the Mauritanian population lives mainly of commerce, agriculture, livestock and fishing. Livestock and agriculture are the main sources of income for rural people.

Most of the Mauritanian population lives mainly on commerce, agriculture, livestock and fishing. Livestock and agriculture are the main sources of income for rural people.

The cultivation systems differ based on the mode of access to water and on the type of soil. The agricultural production, therefore, falls under five major systems:

- The rain-fed system *(Dieri)*, (56 800 to 220 000 ha cultivated per year);
- Behind dams and shallows cultivating system (14 000 to 66 700 ha cultivated annually);
- Natural or controlled flooding along the Senegal River (7 360 to 38 700 ha cultivated annually);
- The oases system (4 751 ha of dates palm and 244 ha of palm cultivation);
- Irrigated agriculture (50 000 ha net developed for around 40 000 ha cultivated on average per year).

The crops are based on millet or sorghum on Djiéri land, based on rice and a little wheat in the irrigated areas, based on date palm associated with market gardening in the oases, and based on sorghum and secondarily corn, on the agricultural lands of Walo and the shallows.

The Mauritanian economy is marked by the coexistence of a traditional subsistence sector based on livestock and rain-fed agriculture alongside a modern sector dominated by extractive industries and industrial fishing largely dependent on foreign markets. The primary sector, in which half the population lives, has seen its share decline inexorably over the years and now represents only around 20% of GDP. (Source CSLP5).

Livestock is the main activity of the rural sector (almost 80% of rural GDP and more than 15% of national GDP), which contributes significantly to the national economy. Over the past 20 years, the livestock sector has been marked by major changes mainly related to: i) rainfall trends; ii) population movements; iii) changes in consumption; iv) support for the livestock sector.

This potential has contributed greatly in recent years, through policies put in place by the authorities, to the fight against poverty and to the improvement of the living conditions of the populations, especially those of the rural world.

1.1 Current initiatives for natural resources management in Mauritania

Approximately 12 project of different scales are currently under implementation in the country. These include support for national priorities for irrigation development (2IS / BM, PARIIS, KFW), support to the rural sector including decentralization (PNIDDLE / BM and EU), support for pastoralism (PRAPS / BM, RIMRAP / UE), development of value chains (PRODEFI and PASK II / FIDA, etc.), and establishment of social safety nets (ECHO, CSA, PAM, Tadamoune, etc.). This stresses the need for concerted action in a programmatic approach. Some projects and programs have indisputable lessons learned in vulnerable areas.

Mention should also be made of aid from Germany (GIZ) which has demonstrated over time the positive impacts of decentralized management of natural and forest resources, particularly in the Sahelian regions, but also that of rehabilitation of small dams (KFW). Finally, experiences include achievements such as those of the IDB, the AfDB, Arab funds FSD, FADES and also FAO which mainly supports vegetable producers' cooperatives. In this context, the World Bank is preparing a series of five sectoral projects which will support the various sectors through a spatial approach concerning agriculture, drinking water, urban development in secondary cities, youth and employment.

All these initiatives should normally contribute to improving access to basic services and the security of people's livelihoods. Better integrating agriculture and animal husbandry to optimize the sustainable use of scarce natural resources as well as income-generating activities would be a first step to support this development, which would be closely coordinated between the various financial and technical stakeholders.

There is no doubt that the government's guidelines call for a spatial approach to the fight against poverty, while reducing the vulnerability[1] of rural areas of the country. Mauritania suffers from strong regional disparities in terms of poverty rate, the Southeast regions being the most vulnerable. Poverty rates are inversely correlated with access to public services. Faced with this situation, the government has always asked donors to prioritize the development of programs to support these very poor regions.

[1] *Poverty reduction strategic framework (2010-2015), relayed by the accelerated poverty reduction growth strategy (2017-2030)*

II. PARSACC

2.1 Key dates

Project title	*Improving the resilience of communities and their food security in the face of the harmful effects of climate change in Mauritania-PARSACC.*	
Implementing entity	World Food Program-WFP.	
Executing entity	Ministry of Environment and sustainable Developement (MEDD).	
Amount and duration	7,8 Million American Dollars (US $) over 05 years after a one-year extension (2014-2019).	
Main steps	**Expected dates**	**Actual dates**
Project inception	January 2013	14 August 2014
Mid-term review	December 2014	February 2017
Final evaluation	April 2017	July 2019
Project completion	December 2016	September 2019
Project closure	31.12.2017	31.12.2019

Table 1. Key dates of PARSACC implementation

Concerned about the need for a leading action for the rational management of natural resources and improving the living conditions of local communities in the context of climate change, the Mauritanian Government and WFP, with funding from the Adaptation Fund (AF), initiated the project "Enhancing the resilience of communities and their food security in face of the adverse effects of climate change" (PARSACC).

PARSACC, with an initial duration of four years (2014-2018) has been extended by one year at mid-term, in order to support national strategies to adapt to climate change and improve the resilience of vulnerable communities in the targeted areas. The overall objective is to strengthen the resilience of vulnerable communities to the effects of climate change on food security in some of 100 villages, spread across eight wilayas in the south of the country.

In order to reach its objectives, the project is articulated around three components:

• Capacity building of technical services and communities to (a) better understand climate risks, their impacts on natural resources and food security, and (b) facilitate decentralized and participatory planning of adaptation;

• Design and implement adaptation measures identified through community adaptation plans to combat desertification and land degradation;

• Design and implement adaptation measures identified through community adaptation plans to diversify and improve the livelihoods of the most vulnerable populations.

Project beneficiaries include the underprivileged, poor and in a situation of precariousness vis-à-vis their food security. The pressure on natural resources, especially forest and pastoral resources is such that the phenomenon of desertification intensifies further with sporadic migrations, especially among young people and heads of households.

The project area mainly covers the production areas of transhumant pastoralists, agro-pastoralists, and the rain-fed areas of the 08 wilayas of Trarza, Brakna, Gorgol, Tagant, Assaba, Guidimakha, Hodh El Gharbi and Hodh El Chergui.

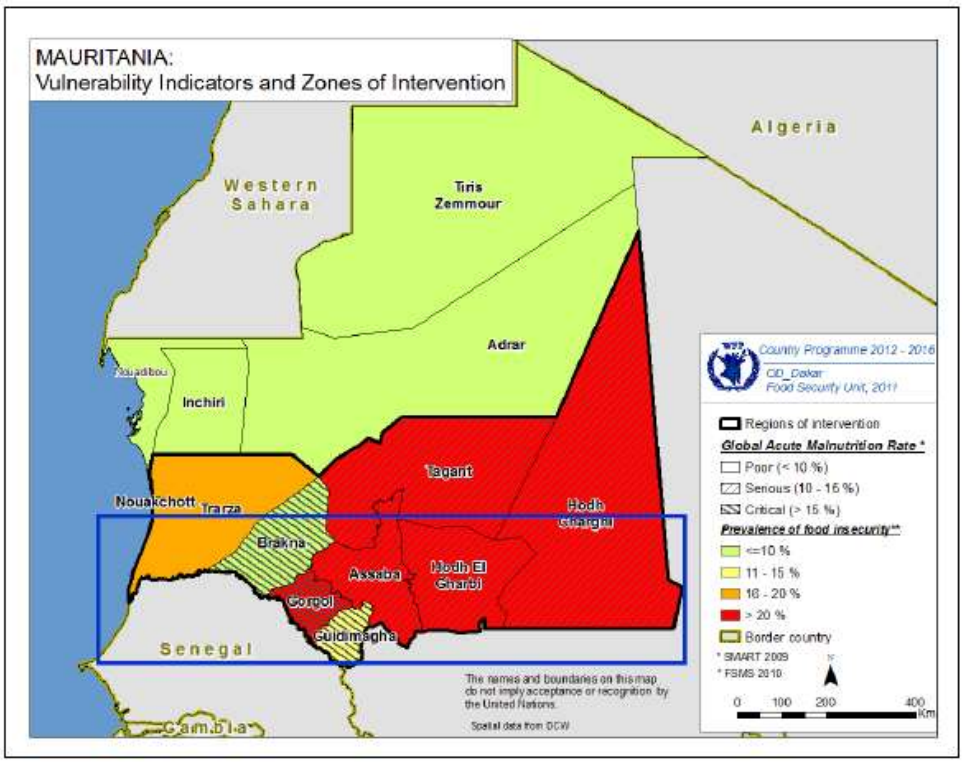

Figure 1. Location of PARSACC intervention areas

The project actually reached 85 villages out of the 100 initially targeted, among the poorest nd most vulnerable. These regions are home to vulnerable populations, very exposed to food and nutritional insecurity, who are the main beneficiaries of the project. The concrete selection of sites or communities was carried out using a methodology based on criteria mainly related to vulnerability, poverty and the potential for agro-pastoral development.Also, one of the expected results of PARSACC was the improvement of the nutritional situation and food security of the 32,000 households benefiting from project activities, by increasing their

resilience to the effects of climate change, diversifying sources of income in a sustainable manner, thanks to an improvement in the resilience of the means of production. This therefore offers a greater number of nutritional opportunities by varying / diversifying food products of plant and animal origin. In addition, the development of activities, with a mainly commercial aim supported by the project through the diversification of income-generating activities (poultry farming, village shops, market gardening, fattening units), would increase the income and the resilience of the beneficiaries and, consequently, will help reduce food insecurity.

2.2 The project components

The objectives of the project and the selected components are aligned with the strategic results framework of the Adaptation Fund (AF) while ensuring a certain complementarity and integration. This is likely to ensure compliance with adaptation measures to the effects of climate change and increased participation of communities in the process initiated with a view to ownership and sustainability. PARSACC is structured around three main components:

Component 1 :	**Support technical services and the communities they serve to: (a) better understand climate risks, their impact on resources and food security; and (b) facilitate decentralized and participatory adaptation planning**
Objective :	Build understanding and capacity of government services and the communities they serve to facilitate and carry out participatory adaptation planning
Component 2 :	**Design and implementation of concrete adaptation measures identified by community adaptation planning which aim to combat desertification and land degradation and the sustainable management of natural resources.**
Objective :	Improve the long-term viability of the productive ecosystems necessary to support secure and resilient food resources to the effects of climate.
Component 3 :	**Design and implement concrete adaptation measures identified by community adaptation planning which aims to diversify and strengthen the food resources of the most vulnerable populations.**
Objective	Increase the resilience and food security of communities and households through the diversification of livelihoods and the sustainable use of the natural resources available to them.

The project implementation structure is light, well articulated between the national, regional and local levels, supported by a steering committee (PSC) for decision-making and an advisory committee comprising the main national partners and technical and financial cooperation partners (PTF) concerned. It is illustrated in Figure 2 below:

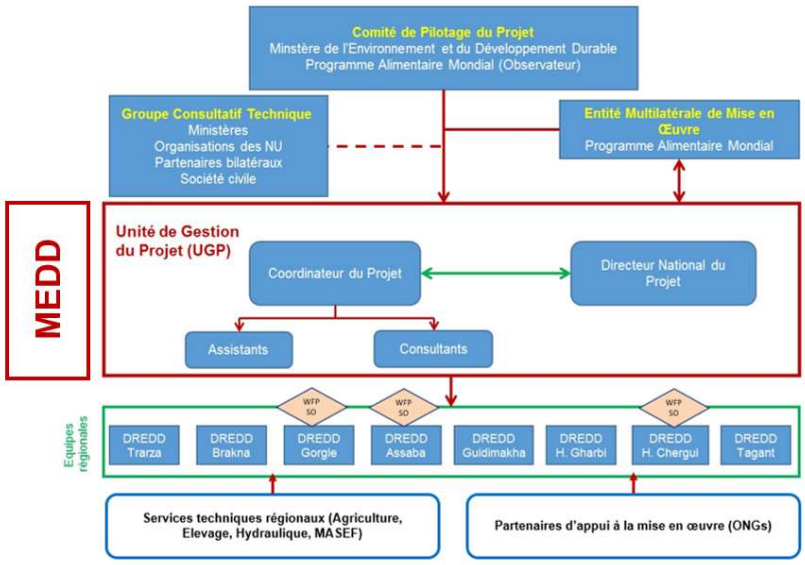

Figure 2. Project implementing structure

III. OBJECTIVES AND METHODOLOGY OF THE EVALUATION

Coming to term and after five years of implementation, a final evaluation mission of the project was entrusted to a pair of experts (International expert and a national expert) during the period from July 17 to September 27, 2019.

The objective of the final evaluation of the project consists mainly in the analytical description of the performance of the project from its conception to the implementation methods. Specifically, the final evaluation of the project will focus on the progress made in improving the resilience and reducing the vulnerability of communities and their livelihoods to the effects of climate change in the sites selected across;

- Validation of the results obtained;
- Assessment of the effectiveness and efficiency of the project and assessment of the sustainability of the investments made;
- Reconciliation of the results obtained from the mandate of the Adaptation Fund (AF); and
- Capitalization of lessons learned and successful experiences.

The final evaluation approach of the Project followed the guidelines of the Terms of Reference (ToRs) and the guidelines of the AF programs and projects. The evaluation mission worked closely with the project implementing entity, the World Food Program (WFP) in Nouakchott and the Project Management Unit (PMU). Overall, the methodology adopted has retained a certain flexibility between the different levels of analysis at the national, regional and local levels.

The consultants' work was carried out in four interdependent and complementary stages: (i) Preparatory, documentation and discussion phase with the project team; (ii) Contact phase with government structures, partners and field visits, (iii) Analysis, consultation and report writing

phase and (iv) Report restitution and validation phase. On the basis of a calendar for the evaluation period, agreed upon with WFP at the start of the mission, contacts were made with the technical services at central level and the financial and technical partners, and field visits were carried out.

In addition to the review and analysis of the rich project documentation, in particular the project proposal and the documents produced by the PMU, discussions and consultation with the various partners and operators at different levels were carried out, before and after the field visits. Those visits concerned 11 villages[2] (a sample of 13% of the total of the affected villages), spread over 05 Wilayas; namely the Hodh El Gharbi, the Assaba, the Gorgol, the Brakna and the Trarza. During the visits, interviews with the communities were held, including representatives of the CGV. These interviews also concerned managers and structures at the regional level with a visualization of the achievements and an appreciation of their effects and sustainability. During this phase, three regional consultation meetings with the authorities and regional structures of MEDD and the other partners involved as well as representatives of civil society (in particular representatives of NGOs operating through partnership agreements with the project) took place in Kiffa (Assaba), Kaédi (Gorgol) and Rosso (Trarza).

The mission's conclusions were shared with the PMU and the staff involved in the implementation before finalization.

It was expected that the review of the project should lead to the formulation of a set of conclusions and practical lessons based on the achievements, their effects and their sustainability. The analysis of the project design, the conditions of implementation and the assessment of achievements should lead to capitalize on the lessons learned and draw lessons to improve the design, the programming of sustainable adaptation measures in order to build the resilience of target communities. An assessment of the measures implemented is expected in order to understand the project response to the urgent needs of the communities and the nee of sustainable management of natural resources in the context of climate change. The mission also held a meeting[3] to present the preliminary results and the conclusions of the final evaluation report in the presence of WFP staff in Mauritania, MEDD officials and the project team.

IV. RESULTS OF THE PROJECT FINAL EVALUATION

4.1 General design of the project

The Project document is rather well designed, and the analysis of its internal adequacy shows a good coherence between the different parts. The document analyzes the situation in the general context of the country and the specific context of the environmental situation of sustainable development. The main issues and challenges of sustainable development and

[2] *Chara and Benmoura (Hodh El Gharbi); Guiguih and Gouesbou (Assaba); Krimi Rag and Cham (Brakna); Ndjadjibeni, Dar El Beidha and Dimechgha (Gorgol); Oum El Ghoura and Moyasser (Trarza)*

[3] *Meeting held at WFP headquarter* 25/09/2019 and bringing together officials from WFP office, UGP and the MEDD

taking into account the effects of climate change are identified as well as the priority problems to which the project must respond, notably poverty and food security. The document introduces an analysis of the impacts of climate change, in particular in terms of environmental degradation, rural poverty, food security, reduction of agricultural and pastoral opportunities and activities.

The objectives and components of the project are well defined, and the activities selected are appropriate to achieve the objectives. The results expected from each product are clearly specified and budgeted for. There is good justification for the project and its nature as an institutional and "programmatic" response to major environmental and sustainable development challenges.

Finally, the project integrates a monitoring and evaluation system which clarifies the mission, the nature and sources of the data, the frequency of the data, the monitoring tools and the reporting tools.

The good design of the project is also reflected in its combined approach, based on the concern to respond to the environmental and socio-economic emergencies of poor rural populations who are in a situation most often of ecological and economic precariousness. It also aims to adopt a long-term vision capable of addressing the root causes of resource degradation and the effects of climate change. Taking into account immediate and priority needs is essential from an ethical point of view to assist populations in urgent needs, but also from an operational and practical point of view. This taking into account by the implementation of the activities favored the support of the populations and convinced them of the relevance of the project.

One of the founding aspects of good design is the vision of the project, fundamentally focused on the logic of valuing natural capital and the benefit that communities can derive from this capital through its good management and protection. The project made the links between the effects of climate change and impoverishment processes more visible and tangible.

The vision of the program is broken down into specific and precise results. The expected results are well defined and fit well into the strategic vision on which they are based. There is an articulation between the expected results and the contextual analysis, therefore the major problems identified. The strategic axes are in line with the problem analysis and the objectives and constitute an adapted response likely to achieve the objectives pursued.

However, certain weaknesses inherent in the design of the project should be mentioned as they had a large impact on its performance.

i) The spatial coverage of the project was not well thought out in terms of its volume of funding, the diversity of these components, its activities and implementation mechanism (implementation capacities). Indeed, the project initially targeted 8 regions of the country covering a very large geographical area and within these regions, 100 villages, often very distant from each other in the same region. For an innovative project lasting 4 years and with limited funding, this large spatial coverage makes implementation and effective monitoring difficult. In addition, it

generates the dispersion and atomization of activities which are a source of resource loss and of low impact;

ii) Although the project management structure, which is the Management Unit, has demonstrated its performance and efficiency, it is not in logical matching with the requirements of the implementation and the volume of design, programming, monitoring, administrative and financial management and support and animation tasks. Indeed, the PMU is made up of only three people who are responsible for managing a project covering 8 regions and with a multitude of sub-components and activities. This led to an overload of the team and lasting pressure, thus leading the PMU to resort to external support (short-term consultations, engagement of NGOs);

iii) The project has engaged a participative consultative process in order to target the project intervention areas. This has been properly conducted, using a methodology based on objective criteria, considering the food insecurity rate, potential climate change impacts, complementarities with the existing initiatives and the level of organization of the communities. This allowed prioritizing vulnerable communes among which some villages have been selected. Unfortunately, this last step has been influenced by socio-political considerations reflecting on the targeting process; and the site selecting process was missing relevance;

iv) The implementation strategy adopted, which favours the use of regional MEDD delegations, is justified and promising in many respects. It makes it possible to strengthen the intervention capacities of the MEDD and its decentralization strategy, to better integrate the actions of the project into the strategy of the department and to promote the continuity and sustainability of actions after the end of the project. However, the assessment of the delegations' limited capacities has not been sufficiently taken into consideration in view of the operationalization of the project at regional level. PARSACC had to invest in training, technical capacity building and equipment for DREDDs to make them operational. This process took time and had a definite effect on the start-up and implementation during the first two years of the project; and

v) The planned coordination mechanism is theoretically adequate and meets the needs of coordination and dialogue around the implementation of the project. This system is structured around three levels: (a) the steering and coordination committee at central level, which includes the technical departments of MEDD. Its mission is to pilot, coordinate, mobilize support and approve annual activity plans and activity reports, (b) regional level technical committees restricted, in charge of supervising, executing and monitoring of project activities in the different regions.

The analysis of the institutional arrangement highlights relative functionality of the coordination and steering mechanisms put in place. Although the National Steering Committee was held annually, it made little contribution to the development of strategic partnerships, complementarity and synergies between stakeholders and

ownership by the technical departments of PARSACC. However, the regional technical committees were only operational in two regions where the DREDDs had played a leadership and mobilization role around the project. The question of the advisability of creating regional committees specific to the project may arise. It is not certain that these committees have added value compared to the Regional Development Council (CRD) which has been established for a long time, chaired by Wali and which mission is to coordinate development actions. It would have been wiser to simply integrate the tasks of coordination and monitoring of PARSACC into the CRD tasks.

4.2 Development approach

PARSACC has opted for a community approach integrating the aspects of analysis of vulnerability to climate change with the promotion of Income Generating Activities (IGAs). The choice also focused on the village territory as the participatory planning / programming unit for adaptation measures with the identification of a structure for organizing population through the promotion of Village Management Committees (CGV). The complementarity between the technical measures for adaptation and sustainable management of natural resources in village areas and the promotion of IGAs, in response to the immediate demands to improve incomes of the populations concerned, is a realistic and pragmatic approach. It makes it possible to strengthen both the sustainability of investments and community social cohesion.

This innovative methodological approach reconciled a traditional participatory community approach with the promotion of IGAs at the level of the targeted village territories. This approach has created a new dimension of social inclusion (involvement of all categories and fringes of the local population) and a dynamic of balanced and sustainable territorial development. Adaptation Action Plans (AAPs) are developed on the basis of an in-depth participatory diagnosis and the proposal of concerted and technically feasible solutions integrating the aspects of vulnerability analysis to climate change and the identification of measures for adaptation. Implementation is ensured in accordance with Annual Budget Work Plans (AWP/B) developed with the CGV. At the same time, IGAs are identified and promoted with close supervision of managers[4] and with flexible and transparent management methods.

[4] *DREDD at the beginning and with the NGOs support later, starting from 2017*

The following diagram summarizes the different stages, requirements / prerequisites and main products of the development approach adopted by the project:

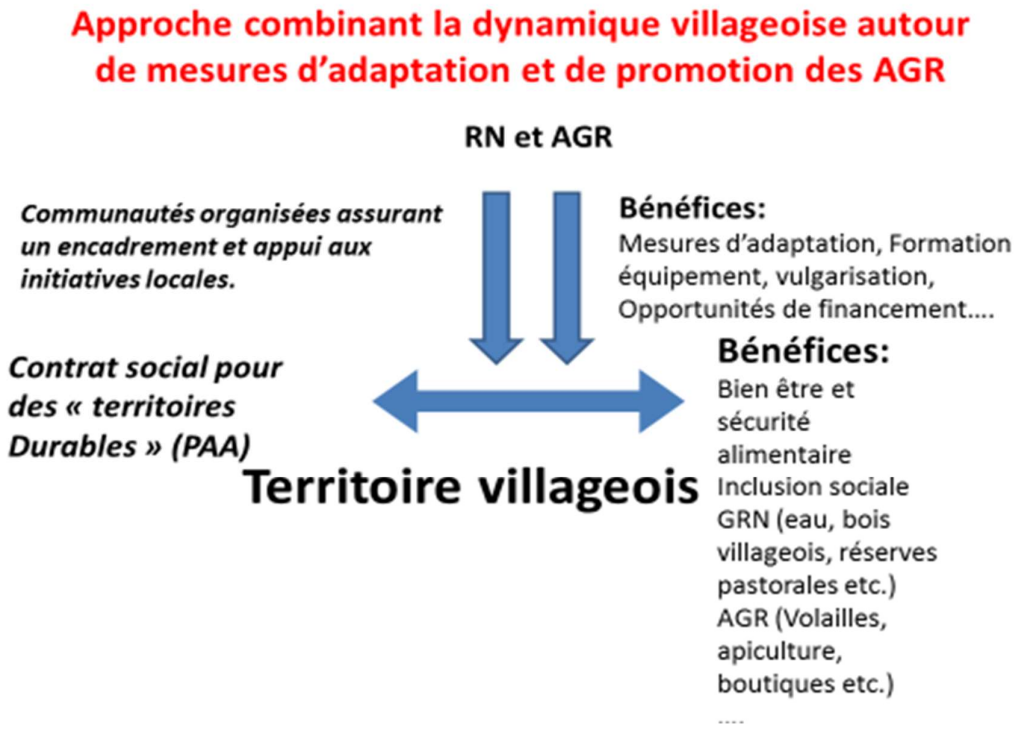

Figure 3. Elements of methodological approach adopted by the project

This approach, demanding in terms of facilitating the process, ensures a territorial dynamic and gives a key role to the participation of communities in decision-making and investments management. It also ensures that communities and local populations are well prepared for the decentralization process promoted by the government since 2006[5].

4.3 Relevance of the project

The evaluation of the project and its results and induced effects leads to the observation of its relevance and validity on the view of country's development context and national objectives in terms of environment and sustainable development.

PARSACC is a response to major issues and challenges facing Mauritania, in particular the emerging and growing challenge of climate change effects. The challenges of poverty alleviation, population resilience, reducing the effects of climate change and enhancing natural capital, are crucial. The project is one of the institutional responses to address these challenges. Relevance is first and foremost based on responding to real needs and problems that arise acutely. Indeed, Mauritania must face the risks of natural disasters associated with climate

[5] *The MEDD is represented at the wilaya scale by regional representatives assisted by 02 or 03 technicians*

change. Thus, several major hazards are recurrent, notably droughts, floods, locust invasions, bush fires or pastoral crises.

Environmental hazards and climate change pose a real threat to the country's growth and sustainable development, which is threatened in particular by drought and floods, heat waves, locust danger and marine incursion. Agriculture and animal husbandry, which are the main sources of livelihood and income for rural people, depend on these climatic factors. The loss, due to the misuse of natural resources in Mauritania, is very high. The evaluation of the global cost of natural resources degradation or their misuse reveals a loss of more than 14% of the national wealth[6] (Gross Domestic Product), which could have been used directly to fight against poverty in the absence of environmental losses.

The Project creates a new perspective on taking climate change into account by implementing targeted interventions that complement each other. It advocates for a global vision focused on the interdependence of environmental and development issues, in particular poverty reduction and food security.

PARSACC can therefore be considered as a contributing instrument to the implementation of the country's policy on PE integration[7], in a context of poverty reduction, fight against climate change, with a view to inclusive growth for sustainable development. Its interventions highlighted the links between the environment and poverty and demonstrated the place of natural resources in people's lifestyles, the negative impact of poverty on these resources, their potential contribution to the fight against poverty in a perspective of rational and sustainable use, as well as the role that ecosystems can and must play to build resilience to climate change.

One of the key parameters of relevance is the decentralization effort in targeting and implementation. The project has positively contributed to this effort through institutional and logistical support, capacity building of regional and local actors, the approach of empowering regional and local actors.

The relevance is reflected in the consistency of the project with the national instruments and its contribution to achieving the objectives of the national development instruments. The alignment and consistency of the new project with national instruments, the Sustainable Development Goals (ODD) and the 2018-2022 Sustainable Development Partnership Framework (CPDD), are fundamental parameters in its strategy and programmatic architecture. The project is a contributing tool for achieving the targets of the Sustainable Development Goals and its implementation will contribute to their achievement. The project fits well with the vision of a preserved environment for sustainable development of the Accelerated Growth and Shared Prosperity Strategy (SCAPP). The links between the project and the SCAPP are manifested in strategic lever n°3: Strengthening governance in all its dimensions which

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6 *PRODOC- IPE project, phase 2, 2008*

[7] ***Poverty and environment project- phase 4, February 2019***

emphasizes natural and cultural resources development, as livelihoods and income of poor household depend to a large extent on these resources.

The project is perfectly consistent with the new Environment and Sustainable Development Strategy (SNEDD), of which it contributes to the achievement of two of its strategic objectives:

(i) Developing natural resources in a sustainable and resilient way to CC for the benefit of poor and (ii) Promote the environmentally sound use of ecosystem services and natural resources.

The outputs of the project overlap with the strategic axes of this Strategy. The following thematic sub-axes are particularly relevant:

i. Intersectoral coordination/synergies and partnerships for the effective implementation of the Environment and Sustainable Development policy;
ii. Environmental information, education and communication (IEC) and capacity building;
iii. Knowledge management (Research, Environmental Information Systems and monitoring) for decisions;
iv. Integrated and sustainable management of natural resources and terrestrial biodiversity ("green" environment);
v. Management and sustainable development of terrestrial natural resources by integrating CC;
vi. Local, decentralized and concerted management of natural resources; and
vii. Concerted management and effective coordination between all stakeholders.

The consistency of PARSACC with the National Livestock Development Plan 2018-2025, which was recently finalized, is evident. The objective of this plan is to promote intensive, productive and competitive livestock farming, capable of making a significant contribution to the fight against poverty and food and nutritional insecurity and to economic growth while sustainably preserving natural resources;

PARSACC is well articulated with the National Program for the Development of the Agricultural Sector (PNDA), which one of the strategic axes is the application of efficient and adapted technological innovations for the intensification and diversification of agricultural production, all remaining environmentally friendly;

Finally, the project is consistent with the National Food Security Strategy (SNSA) whose overall objective is to allow the most vulnerable populations to have physical and economic access to sufficient, healthy and nutritious food at all times. More specifically, the SNSA pursues the following objectives: (i) promotion of a socio-profitable rural and peri-urban economy, diversified and adapted to climate change, (ii) sustainable improvement of the access of vulnerable groups in rural areas to healthy food and balanced diets and (iii) strengthening of prevention and management mechanisms for food crises.

The new project fits well with the ODD, which are a set of objectives endorsed by the international community to eradicate poverty, protect the planet and guarantee prosperity

for all as part of a new sustainable development agenda. It is a contributing tool for achieving the ODD targets at the national level, in particular ODD 1 (No poverty), 2 (Zero hunger), 5 (Gender equality), 7 (Clean and affordable energy), 11 (Sustainable cities and communities), 12 (Responsible consumption and production), 13 (Measures to combat climate change) and 15 (Land life).

4.4 Effectiveness of the implementation

The effectiveness of the implementation is satisfactory, and the performance is good. The analysis of the logical framework and the results of the project provides information on the effectiveness of its implementation. The level of achievement of objectives and targets by component is high. The results are largely satisfactory, especially if we take into account the constraints and endogenous and exogenous difficulties at inception. Almost all targets are met.

With an efficient use of the resources made available, the project reached the majority of its initial targets and a budgetary consumption very close to the total project forecasts. Overall, management is considered satisfactory with a strong emphasis as regards the development of the capacities of the staff of the centralized and decentralized institutions involved. The project has significantly contributed to strengthening the government's vision, policies / strategies for poverty alleviation, food security and the implementation of adaptation measures to the effects of climate change.

The implementation privileged the development of strategic partnerships. The operationalization and the execution of the activities are done within the framework of partnerships based on the missions and comparative advantages of the institutions and the search for synergies and complementarities.

The effectiveness and the performance of the project actions vary sometimes significantly between the villages. On the basis of the results of the final evaluation and the field visits, the 85 targeted villages can be classified in three categories according to the performances. The first category is made up of the vast majority of villages in which the implementation has been effective and efficient and the positive effects are obvious. The results are very satisfactory. This category can be characterized by (i) ecological vulnerability coupled with socio-economic vulnerability, (ii) the relevance of activities in relation to the needs and priorities of the populations, (iii) the sufficient level of collective commitment and adhesion to PARSACC and (iv) social cohesion. The second category is that of villages where performance is average. Results exist but do not meet expectations and support for investment and support. The last and third category, made up of nearly 14 villages (16% of the total of targeted villages), in which difficulties in carrying out the actions planned by the project could not be overcome and led to abandon the activities. This can be attributed to (i) the hasty and oriented choice of target villages for the project (ii) internal social conflicts between two ethnic groups in the same village, and (iii) total disengagement of the communities from the project.

The effectiveness also varies depending on the activities. Most of the activities have been well executed and have produced convincing results. What worked the most in terms of typology of activities concerns: market gardening, mobilization and access to water, reforestation and fixing of dunes, community shops, semi-intensive poultry farming, pastoral reserves and other income-generating activities. Other activities have faced implementation difficulties and their results are rather mixed. This is particularly the case for beekeeping and traditional poultry farming which have experienced serious difficulties in most of the sites and to a lesser degree with regard to surface water conservation works in certain sites.

One of the weaknesses noted is the varying level of functionality of the management committees. Some are dynamic and take initiative to deal with problems, others are less active. Village management committees are essential devices in the functioning, management of resources and sustainability of achievements and their lack of functionality naturally has a negative impact on the sustainability of investments. The main cause is the duration of the project's implementation and the time spent supervising these structures.

The effectiveness and efficiency of the implementation of PARSACC was greatly enhanced by the implementation of the recommendations of the mid-term review. Indeed, the mid-term review allowed, among other things, the more realistic revision and redefinition of the targets with regard to the remaining duration of the project and the concern for achieving these targets. It also confirmed the interest in contracting with NGOs as project providers in charge of certain coaching and awareness-raising and support activities for communities. Bringing on board partner NGOs in the regions has accelerated implementation and relieved the project team of facilitation actions to allow them to focus on management, timely implementation and strategic monitoring. Finally, and this is a crucial aspect, the review has lifted a significant time constraint by extending the duration of the project. The additional duration made it possible to achieve the results achieved by PARSACC.

4.5 The monitoring and evaluation system

The initial design of the project emphasized the need for an efficient M&E system. It was only after a year that a national consultant was hired on the project to support the project coordinator and team in the systematic monitoring of achievements and to periodically assess its performance and effects. A baseline study was carried out in November 2015 (one year after the start of the project) and an assessment of the effects and impacts of project interventions on the communities was undertaken in April 2019[8] in addition to the follow-up work on the implementation and effects; provided by the PMU.

The system publishes quarterly and annual periodic reports on the basis of monitoring reports and information transmitted by the DREDDs.

[8] Mohamed Lemine Selmane; Impact assessment of adaptation actions to the climate change and preparation of the exit strategy of the project, April 2019

The Annual Project Performance Report refers to the logical framework of the project and provides information on the degree to which the results have been achieved, the impact indicators and the progress of the project in general.

Furthermore, the project has a fairly complete database listing all of the project's achievements since its inception. In addition to information on activities, their distribution by province, their importance, etc., it also provides information on the number of participants, the number of beneficiaries, the incentives received, the inputs and equipment distributed, etc. It also provides specific information on training and capacity building programs by theme, by institution and by gender. This important achievement of the project imperatively deserves appropriation and dissemination. It remains for MEDD and WFP to think about how to transfer it to benefit the structures concerned, through capacity development. In summary, it can be said that the project has developed a monitoring and evaluation system consistent with the publication of valid statements and periodic reports and that the project's achievements are well documented.

V. CUMULATIVE PROJECT IMPLEMENTATION

5.1 Assessment of achievements by component

By gaining maturity, the project team performed well from the mid-term review of the project in 2017 by doubling their efforts. This made it possible to make up for the delay in starting the project and to forge solid links of partnership, in particular with the 16 NGOs involved.

Almost all targets are reached with a satisfactory quality of achievement (*Annex 4*).

Component 1- *Support technical services and the communities to help better understand climate risks, their impact on resources and food security and facilitate decentralized and participatory planning for adaptation*-

The majority of the programmed activities are carried out appropriately with a slight delay in the activity of collaboration and support to the 9 regional and local radios in the 8 targeted Wilayas. In terms of training and capacity development, the project provided training to more than 303 people in different fields related to social vulnerability and natural ecosystems facing the effects of climate change. A focus on the participatory identification of concrete adaptation measures made it possible to develop 87 Adaptation Action Plans (87% of the initial target and 100% of the target adjusted at mid-term) and of which more than a third are of good quality.

Of the 303 people trained, 15% are women at different levels. This training involved 40 managers and technicians at the central level, 88 technicians and agents at the regional level, 150 representatives of NGOs and 25 journalists. This effort is very appreciable and deserves consolidation, especially at local and community level.

It should be noted that at least 25 journalists (including 2 from national radio) have been trained in communication techniques to raise awareness of the challenges of climate change and the preparation of media. The project hired a trainer from October 2018 and for 9 months to accompany and provide coaching to journalists from 8 regional radio stations in addition to regional radio FM Barkéol, for 4 days per station. Support for work equipment was funded by

the project. Although this investment was relevant and beneficial for the development of the capacities of journalists to introduce and reconcile awareness of environmental aspects and measures to adapt to the effects of climate change, the reach remains limited range of 20 km at most. However, the resumption of these broadcasts by rural radio, which broadcasts nationwide, has made up for this weakness.

In addition, the PARSACC project, as part of the implementation of its program, decided to make its modest contribution through the establishment of a Community Early Warning System (EWS)[9] which aims to increase capacities, roles and responsibilities of communities in forecasting and managing crises or disasters that can affect their livelihoods, by organizing their forecast. The purpose of the process is to put in place simple mechanisms and tools accessible to the rural world in order to reduce the risks mentioned above.

This contribution, which started late at the end of the project (April 2019), still supports the work of the Food Security Observatory. It was created in 2000 within the Food Security Commission and is the public establishment officially responsible for the prevention and management of food crises.

It is clear that currently the dissemination of agro-pastoral information and advice by broadcasting systems is still low. The information passed on by radio and/or television, in general remains very sketchy and benefits only a tiny part of the target populations.

Components 2 and 3- *Design and implementation of concrete adaptation measures identified (in connection with desertification and land degradation) and the design of concrete adaptation measures focused on the diversification of income sources and means of production among the more vulnerable target groups.*

PARSACC has managed to develop and implement a diversified technical package that includes innovations with direct and short-term repercussions on local communities and populations. These two components have been conducted in perfect synergy, reconciling classic technical measures for the protection of natural resources and the promotion of local initiatives to improve the incomes of populations in the short term. This is the case for the range of income-generating activities (market gardening, semi-intensive chicken coops, shops, fattening units, grain mills, etc.).

In terms of technical adaptation measures, all the targets revised at mid-term are reached with satisfactory quality apart from the water and soil conservation works. These totaled 440 ha, which represents 88% of forecasts and are carried out by the communities with technical assistance provided by a specialized consultancy, with variable technical quality, due to the lack of close monitoring. The tree planting program experienced some difficulties in managing young plantations, which affected the success rate, which was around 50-60%.

Also the distribution of improved stoves, greatly appreciated by the populations with and estimated reduction in wood consumption of more than 50%, only concerned 20,600 improved

[9] *Report on an Early Warning System setting up, April 2019*

stoves distributed on an initial forecast of 30,000 (i.e. a completion rate up to 69%, taking into account the allocated budget) and the training of 179 local artisans out of the 500 planned. In terms of promoting beekeeping, the activity was successful in 4 sites in the 8 targeted villages (success rate of 50%) for social reasons linked to the lack of know-how and specific techniques for driving apiaries and transhumance.

All these technical achievements in direct connection with concrete adaptation measures have created a real appreciable local dynamic with strong social cohesion. Their impact is significant and visible on the increase in income and food security of the 72 thousand poorest households targeted by the project. It should be noted the collective management of the operations promoted within the framework of the project. The case of creating community funds around the management of defenses and shops is a remarkable success of the project to be highlighted.

In summary, the following table shows the main activities promoted with the number of direct beneficiaries:

Fields of intervention	Number of sites	Directs beneficiaries	Pourcentage of women (%)	Cash distributed (MRU)
Fight against sand dunes	36	44 392	54	17 648 383
Village reforestation	37	8 777	47	2 122 191
Pastoral reserves	25	12 244	47	3 679 457
CES/ DRS	10	6 504	51	8 366 988
Total	**-**	**71 897**	**52**	**31 817019**

Table 2. Summary of technical achievements of the project with the number of beneficiaries

The financial implementation of the project progressed over time with an acceleration from the 3rd year of implementation. The project's commitments to the communities and the partners involved are practically honored. The cumulative disbursements of the project totals 7.56 million US Dollars. Overall, the project presents satisfactory performance in accordance with the expected results.

Ultimately, we can conclude that the initial design of the project was correct with a certain overestimation of some targets (Dune fixing works and related unit cost, training of artisans in improved oven and number of units to be distributed, especially). All the adaptation measures proposed are relevant and meet local needs apart from that relating to the creation of grain banks, the conditions for which have proved very difficult in the current context of the country.

5.2 Project contribution to food security

Climate threats and variability as well as their consequences on the pastoral systems result in disasters of all kinds: loss of human lives and livelihoods causing food and nutrition crises whose main victims are children and women.

For many poor households, the level of coverage of their food needs with their own production has decreased significantly over the past decade. As a result, they are more and more dependent on the market to which they can only access through less and less regular and consistent incomes. This consists largely of the sale of their livestock, composed mainly of small ruminants and whose reproductive level is so low that it only allows them to sell a few heads to meet their food needs.

PARSACC has made a significant contribution to improving the food security of target populations. In fact, most of the activities implemented are directly linked to food security. In addition to vegetable production and hydraulic installations, butchers, community shops, poultry farming and cash incentives have a positive effect on the food situation by providing access to affordable essentials and increasing income. The following data, taken from the PARSACC impact assessment report[10], clearly illustrate the impact of the project on food security. Indeed, this report makes the following observations:

i. Vegetable production has increased significantly compared to the past. 74.2% of the respondents concerned by market gardening declare that production has greatly increased. In total, 97.1% think that vegetable production has increased;

ii. Vegetable production is used for both domestic consumption and the sale of surpluses. 77.5% of households use this production for food needs and for income;

iii. 98.5% of respondents who benefit from market gardening recognize that the production of vegetables has improved household nutrition and food security;

iv. In the majority of cases, hydraulic works have had an impact on the cost of water in the target localities. Almost 91% say that the cost of water has decreased with the new project facilities; and

v. The contribution of cash incentives distribution to improving living conditions and food security of the participants is significant and important. Overall, cash improved the living conditions of almost 88% of people who benefited from this action.

With the diversification of livelihoods, in particular support for the promotion of market gardening, poultry farming and other income-generating activities, the project has succeeded in helping to considerably reduce the insecurity of vulnerable households in the targeted villages. The production of various vegetables has benefited at least 41 cooperatives and 6,633 households in 46 villages during the extended period from October / November to March / April each year. Overproduction is sold in the village concerned and neighbors with a preferential price of less than 20 to 30% compared to the nearest markets. Training on drying and preserving

[10] The use of cash is primarily intended for the purchase of food products and therefore plays a primary role in food security

vegetables was provided to 84 women and 5 men from 41 villages, thus extending the period of use and reducing the lean period.

14. Impact assessment of adaptation actions to climate change and preparation of the exit strategy of the project, April 2019

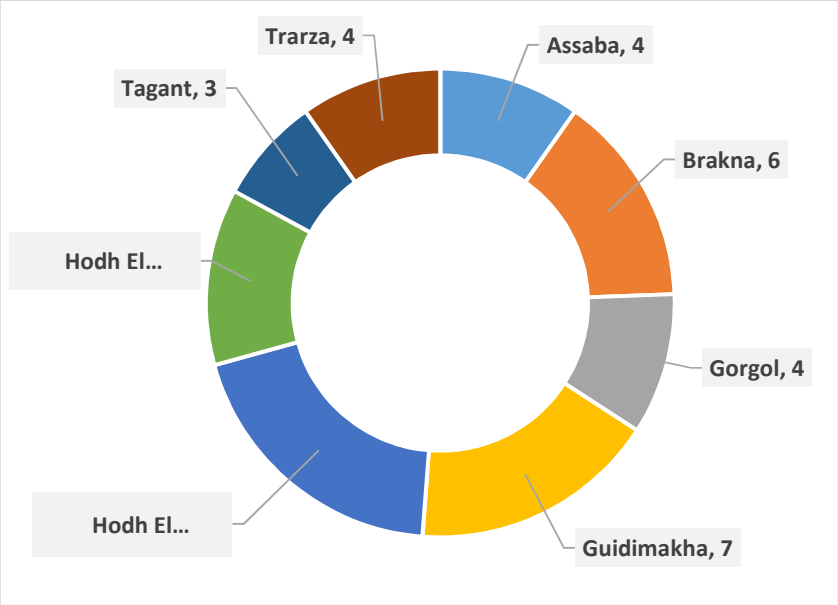

Figure 4. Distribution of market gardening cooperatives promoted as part of the project

In addition, and through the cooperatives created around market gardening and women's organizations in the villages concerned, part of the profits from the sale of products goes to a village bank. In most cases, this is a source of food during the lean season. Similarly, the application of cash for work greatly helped the 12,070 households or 78,455 people[11] to find resources during the lean period to finance the purchase of basic food for the household. The following table summarizes the project's contribution to reducing food insecurity:

Kinds of activities	**Period of food insecurity**					
	April	**May**	**Juin**	**July**	**August**	**September**
1. Markect gardening						
2. Deferments						
3. Poultry						

[11] *Direct beneficiaries participating in the work undertaken and on the basis of 6.5 people per household*

4. Other AGR (Shops, fattening, grain mills)						
5. Cash transfer (cash for work).						

NB. *June and July are the most critical lean season of the year*

Table 3. Contribution of project activities in reducing food insecurity.

Therefore, it is necessary, even imperative for the actors involved and more particularly for the rural communities, which constitute one of the preferred targets of development policies and the fight against poverty in the country, to establish strategies risk governance through the establishment and operation of an efficient, effective information and early warning system and the development / upgrading of a strategy for the sustainable management of natural resources.

5.3 Gender mainstreaming

One of the most documented and perceived main achievements of PARSACC is its significant benefits in terms of empowerment and strengthening of organizational and productive capacities of women. Due to their demographic importance in rural areas and the nature of the project activities, women are the social group which will undoubtedly benefit the most from the planned interventions. IGAs, community shops, support for market gardening and agricultural activities, grain mills and access to drinking water primarily benefit women who, in the social distribution of work roles, take care of these tasks. For example, mills have beneficial effects such as increasing women's incomes, lightening their tasks (chore of molding grains); reduced molding costs and proximity to the service, thus avoiding travel.

In this sense, PARSACC can be seen as a project to promote good consideration of gender issues. It favored the targeting of women as a beneficiary social group, strengthened the capacities of women's organizations and promoted the effective participation of women in community systems and mechanisms and in micro-project management systems.

In addition, a partnership has been developed with current gender programs and with other partners, in particular MASEF, to make better use of their tools and thus influence pro-gender policies. The participation of women in project actions is high and varies from 50 to 75% depending on the type of activity.

Access to water, like the distribution of improved ovens[12], benefited especially women and girls who are in charge of the fetching of water and the daily collection of wood, had a major effect on the reduction of the arduousness of this task. Equipping wells with motor pumps has also reduced the burden on women, girls who take on this chore, freeing women for other domestic or productive tasks and girls for school. One of the activities that occupies women the most in rural areas is the molding of grains for meals.

[12] *20,600 improved ovens distributed (ie 67% of the planned 30,000) by the project in addition to training provided to 179 artisans (ie only around 9% of the 2,000 planned) in the various targeted Wilayas.*

Taking into account the gender approach is one of the most promising impacts of the PARSACC experience. It has been implemented in these different dimensions (i) Participation and empowerment of women in decision-making mechanisms and mechanisms, (ii) strengthening of economic activities and economic empowerment of women, (iii) Access to means of production and capacity building women and women's organizations.

In terms of the overall impact of the project on women, gender equality and the empowerment of women are satisfactory to very satisfactory. The representation of women in the CGV in most cases exceeds 50% with a high participation in meetings and speaking. Now, women are more independent with the improvement of their well-being and reduction of their daily workload (introduction of improved stoves, direct benefits coming from certain project activities) and by facilitating access to sources of production (vegetable gardening and poultry farming with more than 95% of women involved). At least 17,605 women were involved in capacity building and knowledge acquisition, representing 65% of the total and almost 51% benefiting from the diverse activities promoted by the project (i.e. 36,700 women in total). Thus, the project attached great importance to the criterion of gender equality and empowerment of women.

5.4 Summary of results and general assessment of the effect and impact of PARSACC

After five years of implementation, PARSACC's achievements are diversified with very varied degrees of success.

One of the important achievements of the project is the development of community social capital which results in (i) the constitution and training of the 85 local committees, and (ii) the strong involvement of the populations. There is a strong sense of ownership by the populations following their active participation throughout the project cycle: design, coordination, execution, monitoring and evaluation.

However, by referring to the evaluation of the impacts of PARSACC and the conclusions of the current review, PARSACC has had major and diversified positive effects which are important to preserve and consolidate:

i. **From an ecological point of view**, demonstrating the viability of the role of communities in strategies to adapt to climate change is an important strategic achievement and it has a positive impact on the perception of institutions of the capacities and contributions of populations. One of these prejudices consists in considering that communities practices are ineffective in face of these new climatic and environmental challenges because of the difficulty in problematizing the effects of these changes. However, by initiating experiences and solutions tested by the populations, PARSACC proved that these ongoing initiatives are able to provide responses to the perceived effects of climate change and variability. Indeed, the actions undertaken (restoration of degraded soils and development of sustainable agricultural practices, protection, reforestation, protection of crops and plant species), constitutes a good option for climate change adaptation.

The reforestation and environmental protection actions implemented should allow the reconstitution of woody formations limiting wind erosion which leads to the loss of soil and its nutrients, other consequences of climate change. Reforestation increases plant diversity and cover, organic matter and soil moisture. These effects have significant positive impacts on the increase in agricultural production and the diversification of income sources which will reduce the vulnerability of farmers to poverty and climatic hazards.

Most of the practices and activities supported by PARSACC tend to reduce ecological constraints but also have a positive impact on the environment. Thus, the project promotes approaches based on the enhancement of natural capital, environmental protection, the adoption of practices that improve soil fertility, reduce erosion and promote the regeneration of natural resources by optimizing their use. The use of energy-saving technologies such as improved stoves has the immediate ecological effect of reducing the consumption of wood. Even if this impact is still limited, the demonstrative effect associated with the diffusion of these technologies may induce greater scaling in the future.

ii. **Economic benefits** must be strongly noted. They translate into increased and diversified sources of income. The agriculture and livestock farming on which the populations essentially depend on the intervention areas of PARSACC, are dependent on climatic variations. Good rainfall allows farmers and ranchers to increase their income and thereby improve their living conditions. Only, for decades, the country has experienced significant rainfall deficits. Thus, the populations are strongly challenged economically because of bad harvests and poor agricultural yields. It thus appears that climate change is a key factor of economic vulnerability. Faced with this situation, the diversification of income-generating activities (IGAs) constitutes a strategy to make up for the decline in financial resources. The IGAs supported by PARSACC relate to market gardening, pastoral reserves, community shops, butchers, dyeing, poultry farming, fattening units.

The importance of the project's impacts in terms of improving living conditions is based on taking into account the negative effects of climate change which accentuate poverty in rural areas through a significant drop in income from the exploitation of natural resources, in particular agricultural and pastoral activities. The interest of most of the IGAs supported by the project lies in the fact that they contribute both to reducing poverty and to reducing the vulnerability of small producers to climatic and economic shocks. Thus, the economic spin-offs from the actions supported contribute to strengthening capacities of the populations and improving their living conditions.

Strengthening the economic autonomy of vulnerable groups, women in particular, is also a major economic impact. Project interventions have contributed to the increase in collective income from adaptation activities carried out by women.

Access to water is the basic need of poor rural communities that are sometimes landlocked or have difficulties to access. Investing in the supply of water to these localities by digging and rehabilitating wells, building water reservoirs, supplying motor pumps is certainly one of the interventions with high health, nutritional and economic impact. Access to water has mainly benefited the women and girls who are responsible for fetching water and has had a major effect on reducing the drudgery of this task.

In most cases, the infrastructure put in place has contributed to the creation of local jobs and the generation of income resources for the poor. The jobs identified by the mission concern the mills, community shops, the charge of telephones and the management of televisions and the management of hydraulic infrastructures, the management of motor-driven pumps, defenses… etc. These jobs, even if the wages are low, nevertheless constitute an economic contribution to the budget of very poor households.

Actions in the field of pastoralism have had significant impacts which are clearly perceived by the populations. They have contributed to reducing the mobility of livestock for the search for pastures, the costs linked to the keeping of animals and the generation of income for the villagers. The qualitative data confirms the findings of the quantitative data relating to the improvement of the animal health situation following training actions for auxiliaries. This improvement results in better access to veterinary services, a reduction in expenses related to animal health. The reduction of grazing areas, the scarcity of water points, the appearance of new animal diseases, the reduction of the drought cycle are all indicators that attest the vulnerability of animal resources to climate change and challenge, at the same time, breeders and political actors on the urgency of taking appropriate measures.

iii. **Capacity building** is essential to strengthen local initiatives and make them more viable and efficient. Supporting the project and its operators was a necessary measure, the impacts of which are significant on populations and institutions. PARSACC's capacity-building actions[13] have reached several levels. Strengthening the organizational and management capacities of populations is relevant because in itself it constitutes a strategic objective and a means of implementing and ensuring the sustainability of development actions. It has taken several forms, including the creation of village management committees, training on management tools, training in equipment maintenance, etc. The establishment of infrastructure was accompanied by the creation of management committees and their training. The project had positive consequences on the dynamics and the social organization by contributing to a greater motivation of the populations. The infrastructure built and the social cohesion mechanisms put in place promote the regrouping of households, cooperatives, villages around productive

[13] *Capacity building of more than 303 executives and technicians from MEDD, DREDD, journalists and NGOs involved and nearly 26,910 representatives of communities and populations*

activities, encouraging social mobilization around development themes and creating economic opportunities. Some management committees are dynamic and take ownership of project achievements. They have financial management tools and decide on the use of the resources generated.

PARSACC has played an essential contributing role in strengthening and developing the organizational and intervention capacities of the MEDD and other institutional actors.

This made it possible to achieve, among other things, the impact of strengthening operational capacities of MEDD and its regional delegations by the supply of office and computer equipment, the supply of means of transport. Strengthening monitoring and supervision capacities is another aspect of developing human capital and the technical capacities of institutions through training, retraining and study trips. Improving strategic planning capacities by improving the process of collecting and using strategic information and data, supporting planning processes and developing reporting capacity are to be taken as project assets.

PARSACC implementation approach favors the development of partnerships, including contracting with NGOs. The project selected 16 NGOs which are operators and entrusted them with specific tasks defined in the terms of reference. Actions to strengthen the capacities of communities, institutions and NGOs have a positive impact and contribute to a better understanding of climate change problem, while strengthening the capacity to analyze phenomena and related actions. The methodological support process put in place is an opportunity for implementing actors to strengthen their capacities to conceptualize their practices, to design, lead, monitor, evaluate projects, capitalize on lessons, solicit and influence practices and policies.

Furthermore, strengthening the technical and organizational capacities of community organizations and populations is a key factor of ownership and sustainability since the skills acquired can be reinvested in other activities.

The implementation approach is characterized by the use of a participatory approach, the development of spaces for dialogue around the project and the enhancement of local socio-organizational capital. The start-up phase of the project was marked by a sustained effort of communication and information on the program, its objectives, its implementation methods, its eligibility conditions, etc. This awareness-raising work reached the administrative authorities, the municipal authorities, community leaders and the populations. The local committees set up with the support of PARSACC constitute new spaces for dialogue and discussion on project interventions and on local community issues. In addition, they strengthen social cohesion.

VI. RISK MANAGEMENT

PARSACC was able to overcome the constraints of implementing the planned activities and minimize the potential risks. By gaining maturity over time and mobilizing partnership around its action and its intervention program, the project overcame the difficulties encountered.

In the initial design of PARSACC identified a certain number of risks that may arise and that the project faces. Overall, the project managed well and gradually mitigated the risks. The following table recalls the main risks identified and the mitigation measures undertaken by the project.

Risks identified in Prodoc	Risk mitigation measures
External factors can delay the implementation of the project.	This risk arose during the first year of project implementation. Admittedly, the start-up difficulties delayed the implementation without constituting a major handicap in achieving the targets. Following the MTR, a corrective decision was made to extend the duration of the project by one year. This measure allowed the proper execution of the project and the achievement of its objectives.
Difficulties linked to the weak capacity of communities and difficulties in having the skills and the level of necessary social cohesion.	This risk was mitigated by the following measures: - The significant level of investment of the project in building the capacities of the communities; - Training and supervision of village management committees and cooperatives; - The adoption of an integrated participatory implementation approach guaranteeing the participation of all social components, - The recruitment of NGO partners at mid-term for technical support and accompaniment of beneficiaries.
Weakness in management tools and technical capacity related to climate change, particularly with regard to the institutions implementing the project	The measures undertaken and which have greatly reduced it consist in: - Support in institutional strengthening and the development of planning, management and monitoring capacities of the MEDD and DREDD; - Reinforcement of the operational capacities of the MEDD and the DREDDs by the supply of working tools such as office equipment, IT and vehicles; - The learning process for the development of adaptation plans and their appropriation by the communities and the technical support services.
cutting trees planted as part of reforestation activities (deforestation / clearing)	The occurrence of this risk has been very low. There is no evidence of tree cutting, which has been helped by:

	- The involvement and ownership by the populations of reforestation activities; - The empowerment of local committees in the management and preservation of environmental protection actions; - - Awareness efforts on the links between deforestation and climate change.
Natural disasters and droughts	Taking this risk into account was integrated into the national response to the 2017 crisis. Communities are increasingly aware of this phenomenon.
Luck of complementarity	This risk persists and the review has shown that one of the main weaknesses lies in the inadequacy of coordination, the search for complementarity and synergies between PARSACC and other stakeholders. This is a recurring aspect with a gradual awareness on the part of authorities and officials at different levels. However, and from 2016, several project activities were implemented in complementarity with the WFP programs, particularly in the two Wilayas of Gorgol and Guidimakha.

Table 4. Risk management Table

VII.CONTRIBUTION TO AF OBJECTIVES

The activities undertaken by PARSACC have proven to be compatible with the country's strategies and programs, notably the CC, environment and poverty reduction strategy. The interventions with their direct and induced effects have contributed significantly to the objectives set by these tools at local, regional, national and even international level. Components 2 and 3 of the project, with the diversified technical package implemented and the development of capacities at different levels have contributed to the improvement of environmental governance and natural resource management.

PARSACC has the merit of working on concrete adaptation measures at local (85 village communities) and regional level by providing support and capacity building for DREDDs at the level of 08 Wilayas and the 16 NGOs involved, to make them more operational.

87 communities participated in the drafting of AAP with adaptation measures, adopted in consultation with the populations concerned and aimed at strengthening and diversifying the means of subsistence in their village lands concerned. A technical benchmark that can be controlled by the communities has been developed with in particular: (i) 995 ha of dune fixation and 36 protected villages; (ii) deferments 1,000 ha spread over 25 reserves; (iii) 97 IGA promoted in 55 villages and reaching nearly 5,808 households; and (iv) 480 ha treated in CES / DRS works. All supported by awareness-raising and capacity-building actions 12,070 households or 78,455 people.

The introduction of 20,600 improved ovens and the training of 179 local artisans, spread over 73 sites is likely to reduce the consumption of wood by almost 6,551 tons of wood per year and the saving of 19 to 43 days per year. In addition, 460 ha of village afforestation spread over 37 sites will help fix the soil and provide wood to the 8,777 households concerned. On the other hand, the project improved the natural cover through afforestation and protection of 2,455 ha, thereby helping to improve the plant cover rate by almost 0.07%.[14]

Analysis of the gender dimension in the implementation of adaptation strategies also reveals a diversity of actors and roles in the activities carried out. In most of the activities undertaken, those controlled by women are at the heart of the adaptation system. Women also play an important role in the system of governance. This position is all the more justified since women are among the groups most affected by climate change, notably through the drudgery of water and the collection of wood which is becoming scarce, scarcity of good land which increases competition, generally to the detriment of women, reduction of economic opportunities, etc.

In relation to the objectives and results of AF, the following matrix brings together the achievements and the effects of the project with them. More details are given in Annex 3.

Effects/FA Products	**FA Indicators**	**Indicateurs PARSACC**
Result 3. Strengthening awareness and appropriation of adaptation and climate risk reduction processes at local level	**3.1.** Percentage of target population, aware of the expected negative impacts of climate change and appropriate responses	More than 17,820 people (13,320 women and 4,500 men) were sensitized on the challenges of climate change on food security and adaptation and risk reduction strategies, representing approximately 10% of the target population. A draft of a Community Early Warning System aimed at helping communities to adapt better and reduce the risk of disasters. Thousands of people, including outside the project intervention areas, are made aware of the challenges of climate change on food security and adaptation strategies, through weekly broadcasts by local and rural radio stations, prepared on the basis of PARSACC experiences.
Effect 3. Targeted population groups participating in adaptation and awareness-raising activities on risk reduction	**3.1.1** Number and type of risk reduction actions or strategies introduced at local level	87 villages have prepared their climate change adaptation action plans with the support of DREDDs and regional technical services, including civil society with adaptation strategies designed

[14] *Based on the estimated area of the 86 targeted villages of 33,898 km2. This rate being 0.04% at mid-term.*

		around the protection of natural resources and the diversification of livelihoods of vulnerable populations, taking gender into account.
Result 5. Increased resilience of the ecosystem to climate change and stress due to climatic variations	**5.** Ecosystem services and natural resources maintained or improved with climate change and stress due to climatic variations	85 AAPs prepared and implemented included concrete adaptation options aimed at combating desertification, soil erosion and land degradation, preserving natural resources and improving ecosystem services.
Effect 5. Vulnerable physical, natural and social resources enhanced in response to the impacts of climate change, including variability	**5.1. Number and type of natural resource assets created, maintained or improved to withstand conditions resulting from climate variability and change (by type of asset)**	More than 2,415 ha (955 ha of fixed dunes, 460 ha of planted forests, 1,000 ha of protected and improved pastoral reserves) with planting densities of 400 plants / ha contributed to increasing the plant cover in the terroirs of the targeted villages more than 10% compared to the baseline situation (density: 67 plant / ha) allowing the reconstitution of the plant cover and the reduction of wind erosion which leads to the loss of the soil and its nutrients. 440 ha of land restored by Water and Soil Conservation (CES) techniques, such as dikes, filter dams and stony cords, increased the availability of water in the soil. 370 ha of this land was secured, protected and cultivated from 2018. Manufacture and distribution of 20,600 improved stoves contributing to the reduction of wood consumption by more than 40% in households.
Result 6. Diversified and improved food and sources of income for vulnerable populations living in targeted areas	**6.1. Percentage of households and communities with (increased) access to a more secure resource base**	41 Vegetable cooperatives promoted in 41 villages benefiting 8,728 households, managed particularly by women, 16 semi-intensive poultry cooperatives and 40 traditional poultry cooperatives, benefiting

	6.2. Percentage of target population with climate resilient and sustainable livelihoods	560 households, managed by women and young people. 9,330 fruit plants planted with community participation, benefiting 3,973 households in 20 villages, 179 Trained artisans / volunteers, equipped and supported to become key players in the manufacturing and distribution of improved stoves in Mauritania, 97 Community income generating activities promoted in 55 villages benefiting 5,806 households, managed mainly by women.

Tableau 5. Matrix of reconciliation of results/effects of the project to AF objectives

VIII. CAPITALIZATION OF ACHIEVEMENTS AND LESSONS LEARNED

8.1 Methodological aspects

By opting for the village as a homogeneous socio-geographic unit, PARSACC has minimized social conflicts over the management of space and resources. It has successfully implemented an approach that reconciles the management of fragile natural resources with the creation of opportunities to create local wealth. Concrete measures are identified with community members and with ownership, ensuring their sustainability. This combined approach between adaptation and environmental protection measures and the promotion of income-generating activities, valuing both local knowledge and the wealth available, is very relevant and operational in disadvantaged and vulnerable areas.

8.2 Adaptation measures and food security

The project has developed an adapted and diversified technical package with direct repercussions on the livelihoods of poor and vulnerable populations. The measures to promote semi-intensive poultry farming, the development of community market gardening, the diversification of income-generating activities have significantly improved the living conditions and income of the populations and reduced the lean period. The mobilization and conservation of water, the use of solar energy, the use of pastoral reserves in times of scarcity, the introduction of family arboriculture are all adaptation measures introduced and that the populations have put implemented and retained.

8.3 Social approach based on gender integration and social cohesion

Consultation, awareness-raising and community capacity-building process undertaken by PARSACC has led to strengthen social cohesion and to promote cohesive representative structures (CGV and cooperatives). This attitude and spirit of sharing and common management of community goods and services is illustrated in the community and rotating management of the promoted activities (market gardening, management of shops and other IGAs). This is how community funds are created to manage grazing rights in pastoral reserves, the sale of market gardening products, profits from shops and other income-generating activities. The management of its funds obeys rules, decided jointly within the communities and of which a part of generated profits can relate to community actions (case of the village Ben Moura in Assaba and Moyasser 2 in Trarza, for example).

8.4 Technical aspects

In connection with concrete adaptation measures, a technical package has been developed. The capitalization of these measures currently constitutes a technical benchmark for the MEDD and other initiatives in the country. A compilation of these measures and its documentation is highly recommended.

8.5 Innovations

Gradually, the project forged strong links with the communities by helping them to take care of themselves. The support provided for the resolution of certain recurrent community problems (mobilization of water, pastoral reserves) and the promotion of IGAs has favored the generation of local initiatives for the management and appropriation of these investments. The case of setting up village funds, managed by members of municipalities in a collective and transparent manner, is a very promising initiative and one to follow closely. Specific management methods and rules according to the villages are implemented and which show a spirit of support and enhanced social cohesion. This is the case with benefit sharing and the involvement of all sections of the population in the undertaken actions.

In addition, PARSACC is one of the first projects in Mauritania to materialize concrete adaptation measures to the effects of CC with a participative self-management approach.

8.6 Capacity building and promotion of partnership

Among these parameters, the concern and the strategic objective of safeguarding the achievements and capitalizing on the results of the program as a good practice for social, formative and economic treatment of the effects of climate change is paramount. The PASRSACC constitutes an approach and a convincing experience as much by its vision, its methodological approach as by its induced impacts and effects. It has brought great added value to the improvement of methodological tools for planning, monitoring, organizational development and operating procedures which enrich and strengthen national capacity and expertise in the areas of resilience and mitigation of effects of climate change. The concern for capitalizing on achievements is therefore amply justified, in particular in view of the new strategic and programmatic context of the country's development.

The training of project staff, partners involved and communities in the participatory diagnosis of the vulnerability of ecosystems, the effects of CC and the identification of concerted PA reached more than 11 thousand households and 303 manager and technicians at different levels, including representatives of the NGOs involved. Probably, awareness and training of local populations remains insufficient in view of the number of villages affected (85 villages with more than 100 to 120,000 households in total).

PARSACC has forged direct partnership links with 85 CGV, 41 cooperatives, 16 NGOs, 9 regional radios. The synergy with the WFP (distribution of food at the start of the project) is to be considered as a project asset. It is clear that this partnership remains fragile in the absence of consolidation action, particularly for young CGV. Their integration into the local and regional institutional fabric remains among the priorities to be considered at the current stage of evolution towards their autonomy.

IX. ELEMENTS OF EXIT STRATEGY AND SUSTAINABLITY OUTLOOK

The sustainability of the project will be based on several key considerations. First, the government is firmly resolved to pursue its main sectorial strategies and the protection of the environment and the fight against poverty and food insecurity, in particular the PNDA and the PNDE and the SCRAPP. Secondly, PARSACC supported community investments, such as the application of techniques to combat sand encroachment, the intensification of reforestation, the promotion of climate protection, and the sustainable management of landscapes, all by empowering the communities and populations involved in infrastructure management. Finally, PARSACC has strengthened the capacities of the parties involved locally through training activities adapted to their specific needs by systematically integrating women and young people into the various management committees promoted within the framework of the project.

The ownership of the project was facilitated by the direct and joint involvement of stakeholders at central and local level in the various stages of execution: planning, implementation, supervision, monitoring and evaluation. The commitment of NGOs in the implementation was reinforced by signing a memorandum of understanding, which embodies a real partnership.

The sustainability of investments is favored by the following factors: (i) Strengthening the organizational and management capacities of the populations; (ii) Social and economic viability of certain infrastructures such as grain mills, boreholes and wells, community shops, market gardening or defense; (iii) Empowerment of DREDDs in the design, implementation and participation; and (iv) Transfer of management and maintenance skills to local communities aimed at empowerment.

On the other hand, other factors constitute constraints to sustainability, in particular:

i. The poor performance of certain types of activities in certain target sites (traditional poultry farming, beekeeping by exp.) The results obtained are not significant;

ii. The limited effectiveness of certain technical training courses, the duration and content of which did not allow a mastery or even a real familiarization of the populations with the technical aspects;

iii. The low involvement of the regional technical services concerned mainly with project interventions and which, in a perspective of sustainability, must ensure institutional succession; and

iv. The population's mentality of dependence of PARSACC project and the feeling that the project will not exit.

Reflection on the future and the formulation of proposals for sustainability started on the basis of the lessons and conclusions of this final evaluation of the project. Parametric considerations lead to paying particular attention to determining parameters.

The final decision will create a sudden break for which the institutional and associative actors and the populations are not yet well prepared and can generate major risks for the preservation of acquired knowledge and the continuity of actions. This risk must be recognized and mitigated.

Sustainability is an important dimension to take into account, all the more so as it arises in terms of appropriation, establishment of community management and maintenance systems, technical capacity for infrastructure management and communes own resources mobilization. One of the weak points of PARSACC is the uncertainty linked to the sustainability of the whole process.

It is therefore essential that the project exit be gradual to avoid disorganization and questioning of the project achievements, which are still fragile. This is why a transitional phase of PARSACC, focused on the disengagement and empowerment of target communities, must be designed and implemented. Exit should be seen as a transition process that is different in practice from other approaches. This exit process makes it possible to communicate objectively with the various stakeholders, which can, to a certain extent, help to resolve the tensions that may arise between exit and empowerment. The qualitative component of the evaluation documented public concerns about the project exit and its support. These concerns must be managed and responded to because the end of a project is often a source of misunderstanding on the part of the various stakeholders as to the reasons that prompt organizations or donors to end the project.

It should be noted that the results of certain activities supported by PARSACC (Tree plantings, CES works, defenses and village plantations) will only be visible in the next two years. Also, the procedures for managing village banks are not yet well established and still require support, such as the maturity of the CGVs. These aspects are relevant to the empowerment of these social groups.

Some villages, with limited capacities and whose commitment is clearly visible, still require supervision and support. Consolidation action is still necessary to safeguard the gains and develop these young organizational structures of the grassroots (cooperatives and CGV) towards their autonomy. This is all the more justified in the current state of the limited means of the institutional support structures of the government.

These strategic parameters having been clarified, the mission mainly recommends the development and implementation of a second phase of project consolidation dedicated to the consolidation and capitalization of the achievements of PARSACC. The second phase must be structured around the following orientations:

i. Spatial concentration and refocusing of the number of target regions and villages with a view to optimizing and rationalizing resources, seeking the maximum, impact and induced effects, reducing management costs and the ease of effective follow-up. It is essential to be realistic about spatial targeting and to focus on a limited number of regions and villages to avoid the loss of resources and the fragmentation of activities. In this sense, priority must be given to efficient or semi-efficient villages whose experience has demonstrated the social and economic viability of the project. Clearly, it is a question of choosing success stories and convincing lessons to capitalize, reinforce and scale up.

ii. The future phase must be more coherent (thematic convergence) and the effective translation of adaptation plans at the level of the territories of the target communities. This has the advantage of offering a package of activities that support and complement each other, likely to have more impact and results. In addition, this approach makes it possible to limit sprinkling and the choice of atomized activities without real effects. It should be emphasized that a package of integrated activities, responding to a significant part of local needs, is more likely to motivate people and promote their engagement rather than isolated action.

iii. Improving existing community arrangements is perhaps the most appropriate, feasible and appropriate option. In most sites, the management committees are functional, representative and consensual. They manage infrastructure and IGAs. This presupposes the conduct of participatory institutional diagnoses of the committees. Each NGO must carry out a rapid, participatory institutional diagnosis of the management committees to identify weaknesses, gaps and needs for rehabilitation and organizational development. Based on this diagnosis, an improvement action plan should be designed and implemented.

iv. The adoption of an implementation strategy and operating procedures, based on the development of partnerships, the inclusion and empowerment of actors according to their missions and their comparative advantages. Five main departments can play essential roles and contribute to the project. These are mainly MDR, MASEF, MEI, CSA, '' Tadamoun '' Agency. These institutions must be involved and their contribution valued within the framework of a multi-actor approach which brings added value for sustainability, the development of synergies and complementarities and the exploitation of the potential of the institutions according to their comparative advantages. and their missions. It is crucial to start a dialogue and coordination process with the sectoral ministries now to prepare them for succession and optimize their roles in sustainability. This process must be centered especially at the regional level to

ensure the adhesion and institutional support of the regional services which have the competences and the statutory missions in the fields of agriculture, breeding and hydraulics. Sustainability cannot be achieved without their commitment and contributions in technical support, coaching and monitoring. Sustainable responses to climate change require the mobilization of all available knowledge. Thus, the adoption of a "multi-actor" approach involving several groups of actors, is a necessary approach for the consolidation of local strategies of effective, efficient and sustainable adaptation to climate change, which constitute a phenomenon multidimensional. In this perspective, it is necessary to encourage exchanges and the sharing of experiences in order, on the one hand, to improve technical solutions and on the other hand to strengthen knowledge.

v. The anchoring of the second phase of the project in municipal development and the strengthening of the integration of project interventions in municipal planning, in particular municipal development plans and in regional planning (the regional SCAPPs). The process of consolidating decentralization and the establishment of regional councils offer opportunities for better consideration and integration of PARSACC actions in regional development instruments, particularly in the areas of scaling up, mobilization additional support and resources for safeguarding and extending the interventions implemented by the project. In addition, and for the sake of sustainability, it is fundamental to involve the municipalities and make them contribute both in the field of management and institutional organization as in that of programming and monitoring. Thus, the municipalities must be an observer member in the proposed arrangements. It is necessary to promote the positioning or the interest that municipalities can have in the continuity of activities linked to the achievement of the project objectives. Achievement of this objective contributes to the achievement of municipal and regional development objectives, but municipal and regional authorities must be convinced of this to guarantee their adhesion.

vi. Documentation of PARSACC's experience and best practices as an integrated approach, for example the experience between PARSACC and Radio Mauritania in raising awareness and disseminating best practices on a large scale. In order to capitalize on, scale up, disseminate and develop strategic partnerships for the next generation, the documentation and dissemination of best practices and convincing experiences of the project are important strategic issues from a research perspective. sustainability. It is a question of reinforcing and capitalizing the acquired knowledge with a view to sharing on a larger scale by highlighting (i) the impacts (ii) inclusion and equity in the conduct of projects, taking into account vulnerable groups. , (iii) responsibility and " accountability ": each stakeholder has the responsibility to conduct the activities for which they are committed and the duty to report not only to other actors but also and above all to their own members .

vii. Capacity building of management committees. Investing in capacity building is one of the conditions for sustainability to enable communities to ensure the continuity of activities and their sustainability either through community groups or by key people. Achieving the empowerment goal requires ownership of the exit process, appropriate training and capacity building.

viii. The development and elaboration of a technical repository for action to adapt to the effects of climate change with the identification of a training manual to be made available to managers and civil society.

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