



ADAPTATION FUND



REPUBLIC OF DJIBOUTI

Ministry of Urbanism, Environment and Tourism

Directorate of Environment and Sustainable Development

Terminale EVALUATION

PROJECT:

Development of agro-pastoral perimeters as an adaptation strategy to
climate change for poor rural communities in Djibouti

FINAL REPORT

June 2019

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i. Project Summary Note

Project:Development of agro-pastoral perimeters as an adaptation strategy to climate change for poor rural communities in Djibouti.

Identification Number: Atlas Award ID: 00066414 ----- Project ID: 00082602 ---- PIMS ID: 4683.

Evaluation timeframe and date of the evaluation report: From September 28th to November 28th 2018.

Countries included in the Project: Republic of Djibouti; RBAS

Operational / Strategic Program: Energy and Environment Strategic Development and Disaster Risk Reduction

Implementation Partner: DEDD (Department of the Environment and Sustainable Development) and the United Nations Development Program (UNDP)

Acknowledgments

This document serves as the final evaluation report for the BARA Project, which is produced according to the Monitoring and Evaluation terms and schedule, which the United Nation System will incorporate in its framework, mechanisms, processes, and tools. This is intended to confirm and guarantee greater coherence and synergy with government action and reinforce the national capacities of the project's monitoring and evaluation.

We, the evaluation team, would particularly like to express our profound gratitude to the Coordinator of the United Nations System and UNDP Representative as well as their teams for investing in the success of this evaluation mission.

We would like to extend our thanks to the Government of Djibouti, represented by the Ministry of Environment for all the support and promptness it has provided throughout the mission. Furthermore, we appreciate the support and help we received from the Directorate of the Environment, particularly from the members of the Steering Committee and the Project Management Unit.

A special thanks goes to the local and regional authorities that were in the locations of the project for their availability and supporters.

Last but not least, we would like to thank the beneficiaries of this project for the heart-warming welcome we received during our field visits.

ii. Acronyms

AAP	African Adaptation Program
AF	Funds adaptation (Adaptation Fund)
AGR	Income Generating Activities
CCD	Convention to Combat Desertification
UNFCCC	Convention United Nations Framework on Climate Change
CBD	Convention on Biological Diversity
CES / DRS	Soil Water Conservation, Protection and Restoration of soils
ESIA	Studies Environmental and Social Impacts
EMP	Mid-Term Evaluation
ERC	Evaluation Resource CentreUNDP
GEF	Fund for Global Environment
FIP	Identity card project
GEF	Global Environmental Facilities (Global Environment Fund)
GEF IEO	Office of the independent evaluation of the GEF
GRN	Natural Resource Management
HS	highly Satisfactory
MHUEDD	Ministry of Housing, Urban Development, Environment and Sustainable Development
OFF	Operational Focal Point
NGO	Non-Governmental Organization
CSO	Civil Society Organization
PA	Partner programs
PIMS	Information management system relating to UNDP-GEF projects
PIR	Implement ProjectReport
UNDP	United Nations Development Program
UNDP IEO	UNDP Independent Evaluation Office
POPP	Policies and procedures related to programs and UNDP operations
HIPC	Highly Indebted Poor Countries
Produc	UNDP Project Document
RTA	Regional Technical Advisor of UNDP
S	Satisfactory
SDR	Rural Development Strategy
SRP	Reduction Strategy Poverty
TE	TerminalEvaluation
ToRs	Terms of Reference
U	Not Satisfactory
PMU	Project Management Unit
UNV	UN Volunteer

iii. Executive Summary

Table 1: Information about the Project

Project Title	Development of agro-pastoral perimeters as an adaptation strategy to climate change for poor rural communities in Djibouti.		
Atlas Award ID:	00066414		Amount (USD in millions)
Project ID:	00082602	Financing Adaptation Fund	4658556
PIMS ID:	4683	other funding	-
Terminal Evaluation Schedule	September 28 -November 28, 2018	Total Cost	4658556
Date of Report	November 5, 2018		
Country	Djibouti	Region	RBAS
Focal Area:	Energy and Environment for Strategic Development and Disaster Risk Reduction		
Executing Agency:	Ministry of Habitat, Urbanism and Environment (MHUE)		
Implementing Agency:	United Nations Development Program (UNDP)		
Other Partners:	MAEPH, CERD, SEAS,	Signature Date PRODOC	August 13, 2012
	ADDS	Closing Date	February 2018

a) Project Description

The project "Development of agro-pastoral perimeters as an adaptation strategy to climate change for poor rural communities in Djibouti" aims at improving climate resilient agro-pastoral practices in the rural communities in Djibouti. As the arid climate and frequent droughts have forced a massive exodus from rural communities, this project is being introduced as a response to this serious issue. Not only will it improve the adaptation skills of the residents of the rural communities in Petit Bara and Grand Bara so they can be more resilient to climate shocks, but also develop income-generating activities through the allocation of agricultural perimeters. These strategies are expected to have a significant impact and improve agricultural productivity in the country.

This project is based on the second priority of the National Food Security Program "Assisting Vulnerable Groups" of the sub-program "Rural Development" which promotes "Supply of food products and fight against hunger". To better the access to water, it is needed to develop infrastructures that facilitate water access and identification of water points, improve and/or rehabilitate existing water structures, and increase agricultural production by developing new areas, taking into account the availability of water resources and the extension of irrigation systems that rationalise the use of water. Furthermore, all of the project's interventions are

consistent with the United Nations Development Assistance Framework (UNDAF 2013-2017) and work under the umbrella of axis 3 relating the resilience of populations to natural hazards and food insecurity based on the following key results: (i)rural communities and ecosystems are more resilient to climate change and (ii)vulnerable populations benefit from improved food security. Subsequently, this project will contribute to the achievement of the UNDAF Strategic Priority 4 (2018-2022) on Building Resilience and Sustainable and Equitable Regional Development. Globally, supported by the Global Environment Facility, this project will present sustainable measures that will lessen the damage caused by climate change by reducing the risk of such changes and their adverse effects.

Furthermore, this project is intended to create synergy between several ministries so as they can deliver the objectives outlined in the project document. In collaboration with the Ministry of Environment, the Ministry of Higher Education has contributed to this project through sharing relevant studies and identifying potential sites of water that are desirable for agriculture. For its part, the Secretariat for Social Affairs has facilitated the granting of microcredits to the new agricultural cooperatives the project has established- through the Credit Union for Saving and Credit (CPEC) as these loans were necessary to support their operations.

In its overall underlying purpose, the project endeavours to address the following challenges that were set out in the National Food Security Policy:

- Water access and security,
- Reconversion from pastoralism to agro-pastoralism
- Establishing autonomous agriculture cooperatives.

The government attaches a high importance to these challenges, that is to say building the coping capacities and adaptation of the poor residents of rural areas who are being affected by climate shocks. However, analysing the real impact of this project at the beneficiary and environment levels requires a long time.

In overall, the project consists of the following three interconnected components:

Component 1: Secure sustainable access to water resources to address the challenge of climate change through the development of new infrastructures.

This component will secure having access to water and ensure water security. The primary objective is not limited, however, to addressing the human consumption of water, but it extends to cover the development of agricultural production. For these reasons, this component is essentially focusing on the mobilisation of, and sustainable water resources, namely surface water and groundwater, to support for the provision of drinking water and water for agricultural activities in rural communities. To this end, the project will consult studies in order to identify water resources sites, establish the necessary infrastructure to extract water, and develop sustainable management and implementation guidelines through sharing best practices.

Component 2: Development of agro-pastoral oasis-type perimeters for each target family in the project area.

This component aims to develop agro-pastoral areas through which beneficiaries can practice market gardening to produce fruits and vegetables or even grow fodder for livestock. The identified perimeters meet the set criteria, which include soil quality, water accessibility, flood safety measures, existing agricultural sites, agricultural experience of the local community, distance from the village, and familiarity with the traditional breeding system.

Component 3: Access of rural communities to micro-finance so they can establish micro-enterprises that mainly rely on the production of agro-pastoral perimeters.

This particular component is mainly about helping rural communities, particularly agricultural cooperatives, have better access to micro credits.

b) Funding Method

It is noteworthy to learn that the Adaptation Fund is fully funding this project with the commitment capped at USD 4,658,556. It was funded for 5 years but later was extended to 6 years until July 2018 due to the late start of the project.

c) Project Progress

The project aims to adapt rural communities to the problem of climate change through water security, the development of agricultural perimeters and agricultural cooperatives. To this end, the project document lists 3 expected results.

Project Effectiveness:

The first result covers the following infrastructures:

- Constructing and equipping 6 development drilling;
- Rehabilitating 1 injection borehole;
- Building 8 infiltration dams.
- Constructing 6 dams with water retention ponds

The second result focuses on the following:

- Developing agricultural perimeters, covering an area of 228 ha, for 228 beneficiaries; one hectare per each family and serving 30,000 indirect beneficiaries.

The third result tackled the issue of providing beneficiaries with access to microcredit.

Project Efficiency

The efficiency criterion aims to measure the relationship between activities, resources and expected results. This measure should be quantitative, qualitative, and cover the aspects of time management and budget. In relation to this project, it helps us to learn whether the project has been implemented in an optimal manner and directs us to the best economic solution. It is therefore helping us to understand whether similar results could have been achieved by other means, at a lower cost and within the same timeframe.

After testing these criteria, the evaluation team has come to the conclusion that the project used the resources in an optimal manner. This was noted in the various corrective measures and adjustments made by the Steering Committee, which allowed achieving the objectives and implementing all planned activities at the lowest cost using the minimum of resources. The corrective measures that were in place with respect to the number of families, lots of agricultural perimeters, the construction of drilling (due to the significant mobilisation of water obtained from the Kourtimaleh reservoir), and the heady choice to rehabilitate the wells in

Oumboucto altogether reflect the relevance the project management unit to have flexible means to achieve the objectives at the least cost.

Finally, the various performance reports prepared by the PMU reflect the achievement of annual planned activities (as PTA) in accordance to the resources provided for the period. Finally, the implementation of project funding is subject to an annual financial audit according to the draft document.

Finally, all of the different performance reports prepared by the project management unit demonstrate the achievement of the activities planned annually (according to the PTA) as per the resources planned for the period. At the end, the implementation of the financial resources of the project is submitted to the financial audit on annual basis according to the project document.

Relevance of the project

As part of this final evaluation and the outcome of the review, it appears that:

- the project is aligned with the priorities of the National Food Security Policy and UNDP programs;
- the project objectives respond to the challenges in terms of the adaptation of rural communities to climate shocks.

d) Project Impact

The study of the project impact measures the impact of its activities on the medium and long term, which covers the positive and negative effects of the project on its environment, be they expected or unexpected, or of economic, social, political or ecological natures. It examines the significant and permanent changes happening in the life and environment of individuals and groups who have a direct or indirect link with the project.

In terms of overall results, it should be noted that the project has significantly improved the resilience of rural communities to climate shocks through the development of large-scale infrastructures that allowed rural communities to have sustainable access to water, and the development of agropastoral perimeters. Many of the works that have been implemented such as boreholes, dams, and wells correspond to the government's policy to fight against thirst.

As for the water supply infrastructures, the project reached the rural communities that are far away from the main towns, and succeeded in reducing the migration from these rural areas through securing rural communities in their localities. It is important to underline that the water security works that the project has carried out will increase the assets of the NOWSD (National Office of Water and Sanitation of Djibouti) to provide the communities that are located far away from main towns with water (for consumption, livestock and agriculture).

In environmental terms, the implementation of activities was done according to the recommendations of the report "Environmental and Social Impact Assessment" developed as part of this project. Individual achievements are part of the rural landscape of the country and do not compromise the sustainable development of regions.

In environmental terms, the activities were carried out according to the recommendations of the "Environmental and Social Impact Assessment", which is a report that was developed within the framework of this project. The different achievements made are part of the rural landscape of the country and do not compromise the sustainable development of the regions.

e) Project Sustainability

At the time of the Final Evaluation, which took place in October, after the project has ended in July (the deadline is according to the project document), the evaluation team found out that the operating cooperatives (Kourtimaleh, Ouboucto, etc.) are struggling to self-finance their activities due to their incurring of the operating agricultural perimeters costs. If governmental institutions such as Credit Union (CPEC) and Djibouti Social Development Agency (ADDS) agree to support agricultural cooperatives in the years to come, it will be possible to maintain this sustainability mechanism because it will help these cooperatives to develop, let alone the substantial financial resources are needed to increase agricultural production. Further to the point, the development of the sustainability strategy under the project management unit, which the Steering Committee validated and the CPEC and ADDS signed, reflects the integrated approach to agricultural cooperatives at the sectoral level.

The close collaboration between the various ministries that come together in order to bring in the project makes it possible to substantiate the complete ownership of the project, which is obviously necessary to ensure its sustainability. As a result, the different ministries in charge of different project interventions were automatically identified at the end of the project.

In terms of sustainability, it is vital to keep in mind that the project is contingent on the development of an exit strategy that identifies the relevant governmental institutions to which the interventions (achievements) of the project will be transferred in order to ensure its sustainability. However, the project did not foresee the development of such an exit strategy that guarantees the governance of the project's sustainability. Nonetheless, although there is no developed exit strategy in place, the project's achievements will be transferred on a case-by-case basis to the competent state agency to perpetuate the project's achievements.

The matrix of activities did not directly cover the "risks and assumptions" per activity that may hinder the sustainability of the achievements, thus, creating some serious challenges in the future. Instead, they are placed in a separate section that lists the overall risks of the project. Certainly, the financial risk stands out as the most critical risk that can hinder the sustainability of the project's activities; some of the project's activities require funding beyond the closure of the project, particularly, that it is needed to ensure the sustainability of the developed agricultural cooperatives and for the maintenance of the new boreholes. Lack of funds available after the end of the project will affect the achievements of the project i.e. some farmers may give up on the exploitation of their agricultural lands and opt for livestock activities.

The following is a brief summary of the results:

Result (1): Five of the planned six boreholes were drilled but only two of which seem to be functioning. Of the remaining three boreholes, the flow rate of one of them is low (didjanderborehole) while the other two are negative (Qoran Qalooc and Wadajaleh). As for dams, one infiltration dam was built (Oumbouctou) out of the eight planned dams, and one dam with water retention pond, out of the six planned ones, was rehabilitated (Kourtimaleh).

It should be noted that the number of infrastructures to set up, as originally planned, was revised downwards due to the high cost of the works and the large volume of water that has already been mobilised in the water reservoir with a storage capacity of 500 000 m³ site of Kourtimaleh.

Result (2): The project provided perimeters to the beneficiaries who have no land so as they utilise for agricultural purposes. The plan was to allocate 1 ha per family but as families are unable to develop an area of such size, the Steering Committee decided to scale it down to 0.25 ha per family. As a result, the size of lands decreased from 228 ha to 57 ha (0.25 ha X 228 families = 57 ha), and only 96 families benefited from the 30 ha of agricultural perimeters.

Result (3): All of the studies were conducted and a training on setting up cooperatives and agricultural techniques was provided at all of the project intervention sites, the last of which was at the site of Omar Djagga. The latest beneficiaries have already started the development of the agricultural perimeter in Omar Djagga and were assisted by agronomists from the Ministry of the Environment.

The financial perspective: It should be noted that %100 of the budget has been used and there are no more resources available to plan a late training or repair any water leaks from KorKalooc reservoirs. As a matter of fact, the actual purpose of establishing cooperatives and groups was mainly to take over the activities after the project ends. However, some sites -such as the agricultural cooperatives and Hamboucto and Kourtimalei sites – started to self-finance the operating costs of its agricultural perimeters.

f) Scoring Table of the final evaluation and summary of achievements

- Table 2: Overall Scoring of the Final Evaluation

Measure	Rating	Description of achievements
Project Strategy		
Progress towards results (Project Effectiveness)	<p><u>Objective:</u> Improving resilience in rural communities</p> <p><u>Rating:</u> S (Satisfactory)</p>	The ultimate objective of the project is achieved i.e. water availability, water security, and development of agro-pastoral perimeters at the target sites.
	<p><u>R1:</u> Sustainable access to water resources and water security</p> <p><u>Rating:</u> S (Satisfactory)</p>	<p>Completed Construction of:</p> <ul style="list-style-type: none"> - 5 drillings, only two of which are functional, another two that are negative while one has a low flow. - 1 out of 6 retention dams for water infiltration. - 1 dam out of 8 dams intended to capture surface water
	<p><u>R2:</u> Agro-pastoral perimeters developing oasis types</p> <p><u>Rating:</u> MS (Moderately Satisfactory)</p>	<p>- 30 ha of agricultural areas have been allocated for 96 families out of the planned 228 families (Downward revision during a meeting for the steering committee of the project regarding the installation and equipment costs of 228 families).).</p> <p>- construction of 2 storage houses and 1 small dairy</p>
	<p><u>R3:</u> Availability of micro financing</p> <p><u>Rating:</u> S (Satisfactory)</p>	Studies on micro-finance as planned in component 3 were carried out on all of the sites, particularly the training of ADDS and CPEC on the use of the microfinance to fight against climatic changes.
Overall Evaluation of Project Results	<u>Rating:</u> S (Satisfactory)	The project has successfully addressed the challenges of water security and the development of agricultural perimeters, which represent a remarkable progress in the context of countries with arid climate and low rainfall. However, the results of the third component remain mixed in view of the short time needed to assess the operations of the set up agricultural cooperatives

<p>Implementation (quality of implementation and overall implementation of the project) and Adaptive Management</p>	<p><u>Rating:</u> S (Satisfactory)</p>	<p>Corrective measures were taken within the required deadlines, in particular, after the mid-term evaluation. This happened through implementing an accelerated work plan for the remaining activities. Such measures made it possible to implement the components of the project effectively and efficiently.</p>
<p>The design of M&E mechanisms in the project document</p>	<p><u>Rating:</u>MS(Moderately Satisfactory)</p>	<p>The M&E mechanism was not explicitly described in the project document.</p>
<p>Overall quality of the monitoring and evaluation mechanism</p>	<p><u>Rating:</u>MS(Moderately Satisfactory)</p>	<p>Despite the regular meetings held by the Steering and Technical Committees and the annual PV reports that are prepared to reflect the progress of the project, there were no regular field visits by UNDP and did not subject of periodic reports. Similarly, the project management unit did not prepare the final report of the project in which the achieved results, the difficulties encountered, and the lessons learned should be mentioned. The monitoring and evaluation mechanism did not serve the project well i.e. lack of sufficient staff on the PMU did not allow performing regular monitoring and preparing regular monitoring reports in the field. Also, the mid-term evaluation came late (late 2016 - early 2017) as the project begins its completion phase (2018)</p>
<p>Project Relevance</p>	<p><u>Rating:</u> S (Satisfactory)</p>	<p>The project is relevant in terms of its design and achievements, because it is in alignment with the national policies to fight against thirst and hunger, and develop agricultural perimeters. It is inspired by the National Development Policy of the Primary Sector, the National Food Security Policy. The project is part of the UNDAF 2013-2017 and 2018-2022</p>
<p>Potential Sustainability (environmental, socio-economic, financial, etc)</p>	<p><u>Rating:</u> L (Probable)</p>	<p>The project document did not plan an effective exit strategy for the project outputs. The achievements will be transferred to the competent ministries automatically without the need for having any specific agreement to support the conditions of transfer and sustainability of achievements. However, the Ministry is working on a strategy to ensure the sustainability of results, which makes the risk be moderate; given the progress made., certain achievements should be maintained,</p>

g) Summary Conclusion

The project "Development of agro-pastoral perimeters as a strategy for adapting to climate change in rural communities in Djibouti" comes as a response to address the issue of access to water and water security. It provides a sustainable solution to rural communities to stop massive rural exodus. Therefore, improving the capacity of mobilisation and management of surface water and groundwater is important for the resilience of local populations and the development of an indispensable agro-pastoral system to create income generating activities.

As a result, this project endeavours to mitigate the climate shocks caused by the arid climate in the Republic of Djibouti, where droughts are often recurring. The persistent efforts of the government, international organisations and donors are significant in addressing the challenges facing poor rural communities that are exposed to and affected by climate changes.

The activities that have already been carried out made it possible to mobilise a large volume of water at certain sites such as Kourtimalei and Omar Jagaac. Similarly, the agricultural cooperative of Kourtimaleh is operational and started to ensure certain expenses inherent to the operation and the exploitation of agricultural perimeters. The drilling of Yabé which supplies water to the perimeter of Kourtimaleh is powered by solar panels and fuel oil, thus ensuring a continuous supply of water. However, the agricultural cooperative of Omar Jagaac is being the last to be installed on the perimeter because of the late allocation of agricultural perimeters to the beneficiary families.

The project's introduced infrastructures are of a great importance; thus, it is noteworthy to mention that the recommendations of the mid-term evaluation have been followed up, particularly, those related to the capacity building of the project management unit with respect to monitoring and evaluation, and participatory planning. The project management unit has followed an accelerated work plan in order to complete the remaining activities; thus, managed to successfully complete all of the activities planned under the annual work plan by the end of the project. Also, weekly missions were organised by the PMU to monitor the progress of the project on the ground.

Finally, UNDP supervision missions were conducted regularly and associated cross-sectoral synergies. The meetings of the Steering Committee and Technical Committee were in line with the project document schedule. However, it was noted that no beneficiaries (or beneficiaries' representatives) attended in first year meetings of the Steering Committee or Technical Committee so they can take into account the grievances of the beneficiaries of the agricultural perimeters.

I) Introduction

This final evaluation of the project " **Development of agro-pastoral perimeters as a strategy for adapting to climate change in rural communities in Djibouti** " for the period 2012-2018 looks into the effects and the impact in the areas of intervention of project in the regions of Arta and Ali-Sabieh (Petit Bara and Grand Bara). Learning from the implementation of the project will allow us to review the implementation and progress, highlight the learned lessons, and make recommendations.

This final evaluation of the project is conducted in compliance with the terms and schedule of Monitoring and Evaluation, and donors are willing to incorporate it into the mechanisms, processes and tools envisaged to assert and ensure greater coherence and synergy with project management. It was carried out according to the guidelines, rules, and procedures of UNDP, reflected in the evaluation guidelines for all UNDP-supported projects, and funded by the Adaptation Funds (AF). It covered all project activities from the start date until October 30, 2018.

1.1 Purpose and objective of evaluation

According to the Terms of Reference, the mission of this final evaluation for 2012-2018 aims to provide an independent evaluation of the performance of interventions in respect of achieving the project objectives. It includes an analysis of the relevance of the project's interventions, evaluates the achievements of the project, identifies the strengths and weaknesses, the opportunities and the threats, and conclude the relevant learned lessons.

The main tasks of the mission involve:

- evaluating the project's performance through matching the results achieved in against the expected results while taking into account the internal and external context of the project implementation;
- examining the major administrative, structural, organisational and financial challenges faced during the implementation of the project;
-
- measuring the impacts of interventions on the target populations, the sustainability of delivered results, and determine to what extent the principles of strategic scope such as capacity building, environment, sustainable development, and results-based management have been reflected in the project interventions;
- learning from the implementation of the project;

- Identifying the best practices to capitalise and deliver recommendations that can help the stakeholders, namely donors, civic society, and the government, to appraise the relevance, effectiveness, efficiency, impact, and viability of the project for the period 2012-2018, and providing strategic and practical recommendations - in light of the results achieved - for similar projects in the future.

1.2 Scope and Methodology

a. Scope of Mission

This final evaluation covered the entire project implementation period from the effective start in August 2012 to the date of October 30, 2018 and for all the components and all activities carried out with the support of project regardless of the funding body.

This final evaluation covers the entire period of implementation of the project, from the actual start date in August 2012 until October 30, 2018. It encompasses all components and the activities that were carried out to the support the project. regardless of the funding agency.

b) Methodology: approaches and data collection methods

This final evaluation adopts the five OECD / DAC¹ criteria of Relevance, Effectiveness, Efficiency, Impact, and Sustainability as well as the strategic principles of project scope such as environment, capacity building and results-based management.

The methodology considers the applicable policies, practices, and standards that are upheld by UNDP and in line with the evaluation procedures for projects that are being funded by the Adaptation Fund for Climate Change. Its participatory approach includes all stakeholders that are being involved in the implementation of this project. Our collaboration was not limited to working with UNDP, but extended to working with the government, the beneficiaries and other partners that participated in the implementation of this project. This work was carried out through a secondary data collection (document review), primary data direct collection through direct observation, individual interviews, focus group discussions, questionnaires, and field visits in order to monitor the project achievements to date.

The mission adopted a combination of qualitative and quantitative methods for data collection, and followed a participatory approach through individual interviews and focus group discussions. To this end, the followed methodology used document review, individual interviews, focus group discussions, direct observation, field visits, triangulation of gathered information, findings and conclusions, learned lessons, and recommendations. To recap, this methodology can be briefly explained as it follows:

¹ Development Assistance Committee (DAC) of the Organization for Economic Cooperation and Development (OECD).

1. Documentreview:

The evaluation team sought and obtained from the project management unit (PMU), the provision of all necessary documentation including among others:

The evaluation team requested and obtained from the Project Management Unit (PMU) all necessary documentation, including:

- GEF Project Information Form (PIF);
- Project Document;
- Log Frame Analysis (LFA);
- Project Implementation Plan;
- Implementing / Executing partner arrangements;
- The country's national strategy document;
- The paper on the country's long-term vision (Vision Djibouti 2035);
- Lessons Learned Report;
- Mid-Term Review (MTR) Report;
- Annual Project Implementation (APR / PIR) Reports;
- Project budget and financial data;
- Project Tracking Tool, at baseline, at mid-term, and at terminal points,
- UNDP Development Assistance Framework (UNDAF);
- UNDP Country Program Document (CPD);
- UNDP Country Program Action Plan (CPAP);
- GEF focal area strategic program objective.

2. Interviews with stakeholders

The Consultants team has done the small group working sessions with the direct beneficiaries of project interventions and collected the opinions of different stakeholders in the project. Working meetings were held by the team of Consultants with the various groups:

- a. Ministry of Housing, Urban Planning and Environment through the Directorate of Environment and Sustainable Development;
- b. Secretariat of State for Social Affairs;
- c. Ministry of Higher Education and Research (Centre of Studies and Research in Djibouti);

- d. Ministry of Agriculture, Livestock, Fisheries responsible for fisheries resources (Focal Point Branch Great Works);
- e. Prefects and Regional Councils of the project areas;
- f. Project beneficiaries of Representatives;
- g. UNDP (Implementing Agency);
- h. Project Management Unit.

3. Focus Group Discussions

Data collection was done through group discussions facilitation in order to collect qualitative information by bringing into play people with the same expectations for this project. All the while, the specific aspects of different groups related by culture, social organisation, or the standard of living are taken into account to determine their attitude towards this program.

Moreover, we conducted sampling for the meetings and sites to visit based on the information we gathered during the briefing meeting and the document review. For people, we made choices both at the level of the beneficiaries and at the level of all stakeholders being involved in the implementation of this project. To this end, we met the representatives of organisations and individuals including, but not limited to, UNDP, the Environment and Sustainable Development Department, the Project Management Unit, the Ministry of Agriculture, the Secretariat State for Social Affairs, CERD, the Steering Committee of the project, etc.

4. Field Mission:

The purpose of the field mission was to observe the actual achievements of the project at each of the project sites. It helped us to learn more about the perspectives of beneficiaries in terms of their expectations and the various achievements of the project, and made us appreciate the achievements, and understand the overall implementation of the project from the beginning to this date. The project team joined us in the field mission at all of the sites.

5. Triangulation:

This method was used to cross validate data and information through using a variety of questions to examine the same topic. Its primary objective is to better understand the different aspects of each information by eliminating or reducing bias in research to increase the reliability and validity of information. This would allow us to obtain a better understanding of the phenomenon and have confidence in the results obtained. To this end, the consultants interviewed beneficiaries and representatives of different ministries, and conducted field visits and document analysis to understand the different points of view, particularly, the impact of the project on beneficiaries.

6. Limitations of the final evaluation

The learning phenomenon and the impact assessment on the behaviour of beneficiary families will present limits in this final assessment. Also, the evaluation was conducted between October and December 2018 period is not conducive to the cultivation of vegetables and fruits.

The evaluation team confirmed that all of the project's planned activities have been completed although the final evaluation is conducted very early i.e. it is released six months prior to the end date of the project (as stipulated in the project document). The learning trend and the impact assessment for the behaviour of beneficiary families present some limitations in this final evaluation; the evaluation was conducted in the period between October and December 2018, which is a period that is not conducive to growing vegetables and fruits.

7. Structure of the final evaluation report

This final evaluation report comprises five key parts. The first section offers an overview of the evaluation through an executive summary along with a brief description of the project progress, the overall Rating assigned by the team of evaluators, a conclusion, and summary of recommendations.

The second section presents the introduction, terms of reference, and the methodology and approach followed in this final evaluation.

The third section provides a detailed description of the project; its context, the problems that the project endeavours to address, the adopted strategy, objectives and expected outcomes, and the institutional arrangements for implementation and the involved parties and stakeholders.

The fourth section provides a detailed account of the results this final evaluation has achieved according to the following 4 criteria: Strategy, Progress, Implementation and Adaptive Management, and Sustainability.

The final section of this report contains the conclusion of the final evaluation mission and a list of the recommendations necessary for the management of similar projects in the future.

II. Project description and context

In recent years, the government's priority has been to improve the capacity of rural communities that are being affected by the lack of water due to recurring droughts. In response to this issue, this project aims to support the country's efforts to strengthen the resilience of people living in the Petit Bara and Grand Bara regions to the climate change shocks resulting from the recurring droughts that have been happening for several years. The project is fully funded by the Adaptation Fund, implemented by the Ministry of Housing, Urban Planning and Environment through the Project Management Unit, and receiving technical support from UNDP.

Many other technical institutions are involved in the implementation of the sectoral activities of this project, including the Ministry of Agriculture whose responsibilities include the management of agriculture, water resources and related infrastructure through the Directorates of Rural hydraulics, Agriculture and Large Works as well as other state services.

2.1. Project Development Background:

The Republic of Djibouti is located in the Horn of Africa and borders three continents, Asia, Europe, and Africa, with a very young population, of which 35% are under 15 years old (Djibouti, Vision 2035). It is one of the least developed countries and its economy is heavily dominated by the tertiary sector. Its territory presents a contrasting relief with an arid desert climate, low rainfall (150 to 300 mm) per year, and prolonged droughts affecting the populations.

This project is also consistent with the objectives of the Water Initiative, which aims to improve the access rate of rural populations to drinking water and also it is in line with the procedures provided for in the Program Resilience to Drought and Sustainable Development (PRSDD), running by the Ministry of Agriculture with IGAD.

The variability and climate changes happen to be the main causes of these recurring droughts, which have a strong impact on the Horn of Africa. Due to the drastic climate conditions in Djibouti, the country witnesses a significant increase in food insecurity and the resilience of its rural populations has become weaker. To address this issue, this project is in alignment with the Strategy of Accelerated Growth and Promotion of Employment (SCAPE, 2015-2019) to improve the access to water resources in order to make a lasting improvement in the living conditions of the populations of rural areas. It is also in line with the objectives of the Water Initiative, which aims to improve the access rate of rural populations to drinking water, the interventions planned under the Program of Resilience to Drought and Sustainable Development (PRSDD), being implemented by the Ministry of Agriculture with the Intergovernmental Authority on Development (IGAD).

The project is in line with Goal 1 of the Adaptation Fund portfolio, which is to "reduce the vulnerability from the negative impacts of climate change at local and national levels". By enabling access and better management of water resources, the project will directly reduce the impact of climate variability. By increasing market gardening and fodder production and encouraging the development of diversified solutions for agropastoral communities through providing access to micro-finance products, the project will contribute to the Adaptation Fund's result – that is being "national exposure to hazards and climate-related hazards are reduced"

On the other hand, the project is fully in line with the National Adaptation Plan of Action (NAPA), which formally recommends capacity-building activities for agro-pastoralists, the dissemination of high-performance forage species, cooperative organisations, the introduction of drinking water pumping technologies, and the protection of agricultural areas from erosion and flooding.

The project is also fully compatible with CAADP (the Comprehensive Agriculture Development Program in Africa), to which Djibouti is committed, calling for urgent action in areas related to investment in water and land management, investment in rural infrastructure, including roads and food storage facilities, direct incentives for agricultural production and productivity, and the implementation of safety nets for the most vulnerable populations, and to science and technological development.

The percentage of the population living in extreme poverty increased from 43% to 23% by the end of 2008. Poverty affects all geographical areas and has led to a massive rural exodus to Djibouti city. Relative poverty in rural areas has become disastrous with a rate close to 95% (more than 3 out of 4 rural people live in extreme poverty according to the DISED survey in 2010).

Persistent food insecurity is aggravated by inflation in food prices (1.7% in 2009, and 4% in 2010). Therefore, the project is in line with the National Food Security Program and the National Microfinance Policy (2012-2016). In terms of public policy, the fight against desertification and agricultural development are the key elements of the Government's strategy and the framework law on the environment that is in line with this project.

Indeed, in Djibouti City, the extreme poverty rate is estimated at 13.6%, while in other regions, it is almost three times higher than the national rate: 45.0%. Using a global poverty line, the proportion of the population considered poor increases significantly. Across the country 35.8% are not able to cover their food and non-food. Among households in other regions, the rate is even higher with 59.8%.

However, the persistent efforts of the government and development partners have managed to reduce the extreme poverty rate across the country during the period between 2009 and 2017; according to DISED (Statistics Directorate), the extreme poverty rate has dropped from 23% in 2008 to 21.1% in 2017 (EDAM4 -IS). The studies from previous years indicate the existence of a long-term gap between the well-being of the capital (Djibouti city) and the other regions. The extreme poverty rate in the capital is estimated at 13.6%, while in the other regions, it is 45.0%, which is almost three times higher than the national rate. By using a global poverty threshold, it can be noticed that there is a significant increase in the proportion of poor populations with 35.8% of the country's population unable to cover their food and non-food needs. In fact, in other regions, this rate is even higher, about 59.8%.

2.2. Problems that the project aims to address

The Republic of Djibouti with its status as a least developed country located in the arid Sahelo-Sudanese strip where desertification is very high with such a fragile ecosystem, populations are often exposed to high vulnerability linked to climate. The frequent droughts that the country has experienced over the years has worsened this situation due to the scarcity of water resources.

The government attaches high importance to water access and water security, which it considers of extreme urgency, thus the resilience of rural communities to the effects of change should be improved and water security and access to be addressed. This is why the project aims to:

- Find a new robust solution for water collection and storage to reduce the evaporation of rainwater;
- Shifting people from being pastoralists to agro-pastoralists by allowing them to practice agricultural activities;
- Facilitate the development of micro-finance products to enhance the resilience of rural communities.

2.3. Project Description and Strategy

The project aims to improve the resilience of poor rural communities in Djibouti's regions to the recurrent droughts caused by climate change. To this end, the project aims to help these rural communities that live in the regions of Petit Bara and Grand Bara to develop their adaptive capacities and adopt resilient development to overcome climate shocks.

Thus, the project also aims to implement rational management actions to better manage water resources, increase market gardening and forage production for livestock and finally develop diversified solutions through the establishment of a micro local finance and accessible to all. It is for this reason that the project targets the development of agropastoral perimeters as an adaptation strategy for these vulnerable populations in order to reduce the adverse effects of climate change on them. The project has three interrelated components, namely:

Thus, the project also aims to implement rational management actions to better manage water resources, increase market gardening and fodder production for livestock, and finally introduce diversified solutionsthrough the development of accessiblelocal micro-finance products. For this reason, the project focuseson the development of agropastoral perimeters as an adaptation strategy forthese vulnerable populations to help them reduce the adverse effects of climate change on them. The project consists of the following three interrelated components:

- Component 1: Sustainable access to secure water resources through the development of new infrastructure;
- Component 2: Oasis-type agro-pastoral perimeters developed for each target family in the project area;
- Component 3: Micro-financing that is available to rural communities for the development of agro-pastoral micro-enterprises.

The expected results of this project will ensure targeted populations of the project have better access to water resources, and improve theirresilience to climate change by which they can effectively combat thenegative effects of climate variability. The project will further promote anddevelop new micro-credit productsfor rural communities and women living in rural areas. To this end, and in accordance with the various components, the expected outcomes of the project are as follows:

- **Outcome 1:**The capacity to mobilise and secure sustainable water resources,notwithstanding the climate changes,to the developed agro-pastoral communities.
- **Outcome 2:** Developed agro-pastoral systemsthat are resilient to climate change, providing greater forage production capacity, diversifying agricultural production, and creating capacity for replication.
- **Outcome 2:** Micro-credit products developed to facilitate and promote the diversified agro-pastoral production systems that are resilient to climate change.

Delivering these outcomes required carrying outa number of activities,targeting several areas – all of which have been identified in the project document - spreading over two regionsof the south west part of the country and in different areas. These activities included:

- Mobilisation and management of surface and underground water to ensure better water supply for agricultural perimeters, local populations, and their livestock;
- Construction and rehabilitation of the retention infrastructure and hydraulic works (earth dams, underground dams, and boreholes);
- Development of agricultural perimeters to improve agricultural production and livestock production in rural communities around the project areas based on the water availability, soil quality, and the attitudes of the beneficiary population;

- Development of income-generating activities through the availability of different microfinance products, and creating jobs;
- Strengthening the capacities of beneficiary populations through developing organisational structures for the management and monitoring of these hydraulic infrastructures (Steering Committee, Management Committee for Water Points and Agricultural Perimeters).

This is a participatory based project that aims at enabling beneficiary communities to organise themselves, coordinate with the project partners and local institutional stakeholders in order to implement these water infrastructures in a better way and to ensure the implementation of the project adaptation activities under the best conditions.

A total of 35 activities have been planned and classified into the following categories:

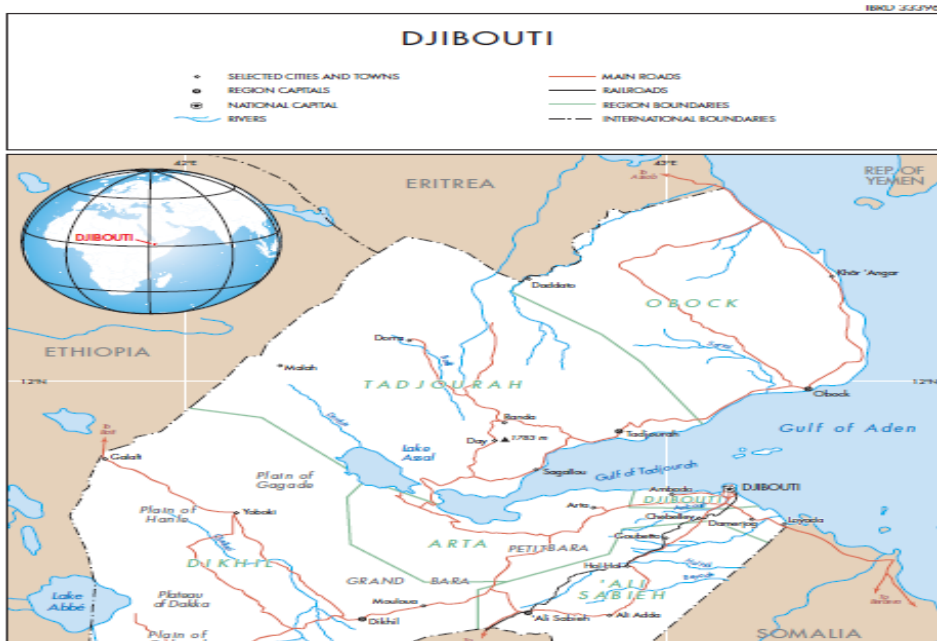
- Outcome 1: Access to water 13 activities.
- Outcome 2: agricultural perimeters 11 activities.
- Outcome 3: Micro-finance activities 11 activities

The aim of these different activities is to deliver the 4 outcomes for component R1; 3 outcomes for component R2; 3 outcomes for component R3. The total of the expected outcomes is 10 outcomes covering the three components.

2.4. Project intervention area

The project intervention area is located in the Arta and Ali - Sabieh regions (at the southern part of the country) and extends for about 30 km long and 12 km wide (Figure). Rainfall occurs mainly during the Karma season (July-August), which gives an annual average of 150 mm of rain.

Generally speaking, the temperature remains high throughout the year and the land experiences heavy wind regimes, leading to a potential evapotranspiration rate of about 2000 mm / year. *



Map 1: Delimitation of the project area (Source: Project Document AF / UNDP / MHUE)

2.5. Project Management Agreement

The Ministry of Housing, Urban Planning and Environment (MHUE) is the key institution on all matters related to the environment and climate change in Djibouti, thus, it coordinates and collaborates with several government institutions and civil society organisations to address climate issues.

The Government of Djibouti has requested through the competent Ministry and under the framework of this project that UNDP be the implementing agency, accredited by the Adaptation Fund.

Other actors have been involved in the project such as the Steering Committee, which is chaired by the MHUE and is responsible for monitoring activities, the Technical Committee, and the Project Management Unit.

The members of the Steering Committee include the State Secretariat for Social Affairs (SEAS), the CERD, the Ministry of Agriculture, the Prefects and Regional Councils of the project areas as well as the representatives of the beneficiaries.

The roles and responsibilities of each of its bodies are defined as follows:

- **Implementing Agency:** United Nations Development Program (UNDP)
- **Executing Agency:** Ministry of the Habitat, Urbanism and Environment through the Directorate of Environment and Sustainable Development (DESD).
- **Project Steering Committee:** Provides guidance for the implementation of the project, and it is made up of the following members: UNDP, the State Secretariat for Social Affairs (SEAS), the Ministry of Higher Education and Research (CERD), the Ministry of Agriculture, Water, Fisheries, Livestock and Halieutic Resources (Focal Point Department of Heavy Works), Prefecture of Arta and Ali Sabieh, and Arta and Ali Sabieh Regional Councils.
- **Technical Committee:** Provides technical guidelines for the definition of field actions. It consists of the focal points (Major Works Department, Rural Hydraulics Department, Agriculture and Forestry, Directorate, Livestock Directorate, CERD, SEAS, and UNDP) and the Project Management Unit.
- **Project Management Unit:** Ensures the implementation of the operational and functional activities of the project. It consists of a National Direct Manager who is responsible for the successful execution of the project. The day-to-day activities are carried out by a project manager assisted by a monitoring and evaluation officer (vacant post), an agriculture officer, an administrative and financial assistant, a community mobilisation officer and a driver.

2.6. Project duration

The initial term of the project is five (5) years, starting from 13 August 2012 and ending on 13 August 2017 (extended until July 2018 due to the late start of the project).

2.7. List of key stakeholders

The main stakeholders of the project are:

- Ministry of Housing, Urbanism and Environment (MHUE)
- Ministry of Agriculture, Water, Fisheries, Livestock and Halieutic Resources (MAEPERH)
- State Secretariat for Social Affairs (SEAS)
- The Centre for Studies and Research in Djibouti (CERD)
- Local authorities including Prefects and Regional Councils
- Beneficiary communities

III. Results of the final evaluation

The results of the final evaluation are consistent with the terms of reference of this mission and the UNDP procedures for the final evaluation of projects, under funding Adaptation Fund (AF), and the standard template of the terms of reference for this project. The results cover four main themes, namely:

3.1 Project strategy: Project's relevance to national priorities

This part focuses on the results of the evaluation in terms of the design and framework of the project's results.

After conducting an in-depth evaluation based on the data we have collected from the project document, work plan, monitoring and evaluation plan, project performance report (PPR) and field visit's observations, we concluded the following findings:

- Project design:

The project is well designed and has considered in the design phase specificities of local conditions and realities. Lessons learned from other similar projects (e.g. Supporting Rural Community Adaptation to Climate Change in Mountain Regions) were used for developing a better design, which is in line with national priorities. An important aspect of the project design is the participatory approach that takes into consideration the involvement of beneficiaries in the decision-making process that affects them. The second satisfactory aspect is the consideration of gender (participation of women) in project activities. Women, despite not being able to do certain works as they are reserved for men and the presence of certain limitations due to cultural and religious factors, occupy a prominent place throughout the process which can contribute to their development and facilitate their empowerment. The various preparatory studies during the project design (identification of the needs of the populations of the most vulnerable sites) had significant contribution during the design of the project,

- Results Framework:

After applying the S.M.A.R.T. criteria to measure the quality of the matrix of outcome indicators, the following Summary Table is produced:

Table 3: Analysis of output indicators according to S.M.A.R.T. criteria

	Number of Outputs Indicators	Simple	Measurable	Acceptable	Realistic	Temporality
Component 1	7	2	2	2	2	3
Component 2	6	2	6	3	3	2
Component 3	6	2	6	2	2	2
Total	19	6	14	7	7	7

Source: Project Document

From the SMART analysis, the following points can be noted:

- Some indicators are particularly qualitative and it is difficult to observe the levels of progress objectively;
- Many indicators experience large deviations from the target values, which indicates that some indicator values may have not been well appreciated at the time of planning, or that there were significant changes in the implementation of the project (for example: the number of beneficiary families were reduced from 228 to 96 families due to the cost of installation and equipment);
- The products have not been correctly defined in relation to the outcome indicators, which makes it difficult to decide which products to focus on in order to contribute more to the achievement of outcome indicators.
- The indicators are, for the most part, achievement indicators and not indicators of change.

In the context of this final evaluation, the quality assessment of the formulation of the results is not intended so they can be brought into question. Rather, it is intended to highlight the shortcomings that could be amended by preserving the essence of the results concerned. The approach adopted is part of a learning perspective that should make it possible to capitalise on the lessons learned for the implementation of similar projects.

The review of the matrix of results demonstrates overall coherence in the results chain; the activities are well articulated to products; the planned outputs effectively contribute to the achievement of the expected objectives.

The project under final evaluation aims, as indicated above, to help poor rural communities to find adaptation solutions to climate change to address the recurrent droughts that the country has endured for several years.

To this end, three (3) main results are expected at the end of this project whose achievement depends on 10 expected products that are realised through executing 35 activities to ensure the populations have access to water, agricultural perimeters, and micro finance products to support their adaptation activities to overcome climate changes.

In overall, the products (activities) delivered are proven to be concrete, as they have been developed and delivered according to the international standards and procedures. All of the equipment, training, and relevant expertise that have been made available to develop the adaptation capacities of the rural communities in Djibouti, satisfy stringent quality requirements. The contract review committees helped the PMU to identify and exclude non-performing suppliers.

However, the project's results framework has some gaps since it does not assign indicators to all activities, which, may - to a certain degree - make it difficult to understand the activities to which there are no indicators assigned, especially when it comes to pivotal activities such as the development of infrastructure for water mobilisation .

Likewise, the logic of intervention in this project makes it difficult to understand which could have been otherwise if the presentation of the results framework followed the following logic: Overall objective - Specific objectives - Expected results (for each specific objective) - activities to be carried out - achievements related to each expected result, and indicators of the achievement of each activity. This structure should help the monitoring and evaluation unit to perform their work.

3.2 3.2 Progress against expected objectives: project effectiveness

This section looks into the final examination of the various achievements in order to measure the level of progress and the results achieved at the end of the project. A brief explanation should provide a "justification" or the reasons for the attribution of each Rating. As mentioned above, a total of 35 activities are planned and distributed as it follows: 13 activities for R1, 11 activities for R2, and 11 activities for R3.

In fact, the progress report will include the assessment of the project effectiveness and the results achieved. In other words, it will measure the progress that facilitated the achievement of the desired objectives. On one hand, it verifies whether the targets for the expected activities during the period of 2012-2018 have been achieved and, on the other hand, it highlights—to the furthest extent possible - their actual contribution to the achievement of strategic outcomes.

Table 4Matrix of progress towards results

Project Strategy	Indicator	Base level	level PPR	Target achieved at the end of the project	Expected Target	Rating	Rating rationale
Result 1 Sustainable access to safe water	1.1: Number of approved study reports	0	04	04	04	S (Satisfactory)	All activities were carried out taking into account the corrective measures as some targets were revised downward by the steering committee '
	1.2: Hectares irrigated by boreholes		-	15	228 ha		
	1.3: Hectares irrigated by constructed dams		07	09	228 ha		
	1.4: Number of shared best practices, plans and guidelines		-	21 ha	228 ha		
Result 2 Developed agricultural perimeters	2.1: Hectares used to develop agricultural areas	0	60	30	228	MS (Moderately Satisfactory)	The implementation of all planned activities was effective. However, some changes happened to the initial targets (revised downwards approved by the Steering Committee).
	2.2: Number of training beneficiaries		60	96	228		
	2.3: Number of constructed storage warehouses		03	02	06		
Result 3 Secured access to micro-finance products	3.1: Number of micro-finance products available	0	0	7	07	S (Satisfactory)	All planned activities (studies and training) were carried out.
	3.2: Number of trained agro-pastoralists		0	96	228		
	3.3: Number of established cooperatives	0	0	4	04		

The following lists the achievements made to each expected result:

Result 1: Sustainable access to safe water

To deliver this result, 13 activities have been planned, and the achievements of each one that can help in measuring the level of execution are detailed in the below table.

Table 5: Details of the activities implemented to achieve the first result (R1)

No. Activities	Planned activities	Achievements
1	Component 1: Secure sustainable access to water resources in the face of climate change	
1.1.1	Initial modelling study on pedology, hydrology and hydrogeology, including an analysis of availability of water resources and projections of climate change scenarios for water availability in Petit Bara and Grand Bara watersheds.	<p>All planned studies have been completed.</p> <p>This made it possible to determine the suitable areas for drilling and capturing surface water.</p> <p>Soil pedology made it possible to determine the type of crop adapted to each site for the establishment of agricultural perimeters.</p>
1.1.2	Detailed Environmental Impact Assessment on the design of dams and the irrigation networks, including water quality analyses in accordance with Djiboutian regulations	This assessment took place in Dec. 2014 and offered some recommendations for the operational phase of the project.
1.1.3	Identification of suitable sites for retention ponds, dams and underground drilling based on the consensus between beneficiaries and ministries.	This activity was conducted following a participatory approach that included both the beneficiaries and local authorities.
1.2.1	Training the technical personnel of the Ministry of Water on the exploitation of surface water, artificial recharge, and sustainable management of water resources.	Ministry staff participated in the on-site learning sessions but there was no theoretical training on the subject matter.
1.2.2	Design of artificial recharge and preparing Operation and Maintenance manuals for solar-powered boreholes pumping systems.	<p>The design of the recharge drill plans has been completed. The operating manual is not yet available.</p> <p>The design of the recharge drilling plans has been completed. All the while, O&M manuals are not yet developed.</p>
1.2.3	Construction of 6 exploitation boreholes (4 at Grand Bara and 2 at Petit Bara) and the rehabilitation of one injection borehole.	5 boreholes were drilled but only two of which are equipped and functional; two were negative, and the flow rate of the fifth was weak.
1.3.1	Design of dams' scheme, infiltration, and surface water retention ponds, and development of user manual.	The design of the scheme was completed as well as the technical files and the user manual.
1.3.2	Construction of 6 earth retaining dams and their ponds	<p>Realization of one (1) earth dam (dike). The project has developed a large reservoir with a capacity of 600 thousand cubic meters. However, the number of reservoirs planned initially has not yet been reached. It should be noted that the number of infrastructures has been revised downwards due to the very high cost of the works, and the large volume of water that has already been mobilised at the Kourtimalei water reservoir.</p> <p>19 water tanks</p>
1.3.3	Constructions of 8 dams (dikes) for surface water retention (infiltration for boreholes)	One(1) dam was built out of the eight (8) planned dams in the project document due to the very high cost of the work, and the large volume of water that has already been mobilised.

1.3.4	Monitoring the infrastructure work of the dam to ensure robust construction and mitigation of any potential adverse social or environmental impacts.	Activity was carried out for 2 of the 6 planned sites. The number of sites was revised downwards because of the very high cost of the work, and the large volume of water that has already been mobilised.
1.4.1	Creation of a community-based water infrastructure management committee to develop local recovery mechanism, management plan, and good practices guidelines.	A management committee has been created - A good practice guide manual has been developed for the project.
1.4.2	Design of a water permit and socially sensitive tariff structure to apply under a national legal framework for water resource management to raise awareness on water use efficiency and the resources for maintenance of water infrastructure	Activity was not carried out
1.4.3	Development of a standard system for capturing lessons learned on water harvesting, community mobilisation tactics, water management strategies, and cost recovery mechanism to continuously incorporate them into the water's good practice guidelines.	Activity was carried out

According to the table above, 5 of the 13 activities planned for the achievement of the Result 1 have been fully completed in relation to the studies part, while 7 activities were carried out with scaled down targets, and the 3 activities related to their infrastructure management have been completed.

It should be noted that the number of infrastructures to install, as originally planned, has been revised downwards because of the very high cost of the works, and the large volume of water that has already been mobilised. The efforts exerted and the financial resources allocated made the number of operational drillings compared to the exploitable agricultural perimeters remain sufficient (3/6). With regard to the construction of the water collection and storage infrastructures, considerable efforts have been made, all the while, due to the exorbitant cost of dam constructions, the number of planned and completed dams (surface water or infiltration) is only 2/14.

The assessment of progress towards achieving this result can be summarised as follows:

Tables 6: Rating of the progress made towards achieving the first result (R1)

Assessment of progress towards achieving results R1		
		Explanation
R1: Sustainable access to safe water	S (Satisfactory)	Access to water throughout the entire project intervention area has been secured in Kourtimalei, Omar Djagga and Hamboucto, apart from the Qor-Qaloc site, which is supplied by the borehole in 'Ali-Sabieh, and local authorities confirmed during the evaluation mission that it has plans to carry out another drilling work on this site. In spite of this water constraint, the beneficiaries continue practicing agricultural activities by installing dropout water supply systems on land plots.

Result 2: Agricultural perimeters developed

To deliver this result, which partially depends on water availability at a given site, the total of 11 activities have been planned in the project document. However, as all these activities have interdependence with the first component and given the availability of water, there has been a little bit of delay in their implementation.

Nonetheless, almost all of these activities have been carried out and great efforts have been made on a number of sites such as Kourimalei, Ombouctou and KorKalooc. As for the installation of the solar panels on the drilling of the Yabé site and the finalisation of the second reservoir of Omar Jagaac site, they are completed and functional before the final evaluation.

The overall situation of achievements is as follows:

Table 7: Details of the activities implemented to achieve the second result (R2)

2	Component 2: Developing climate resilient agro-pastoral perimeters to support and diversify agricultural productions.	Achievements
2.1.1	Selection of agro-pastoral beneficiaries based on specific criteria through community meetings with project representatives	Kourimalei 20 Qoran Qaloc 24 Hamboucto 12 Omar Jagac 40 ----- Total 96 families (identified and installed except Omar Jagac)
2.11.2	Construction of planned enclosure with robust fencing materials in addition to natural trees	Fences have been built for sites with natural wind breaks such as Leucaena
2.1.3	Design and construction of water reservoirs (cisterns) for sites of 38 hectares each with costs of irrigation equipment	The tanks are installed on the 06 sites where the beneficiaries have already been identified and installed.
2.1.4	Preparation of 06 sites(38 ha each) NB: Forecast revised downwards (0.25 ha per family X 228 = 57 ha)	05 ha Kourimalei 12 ha Qoran Qaloc 10 ha Omar jaqac

		03 ha Hamboucto ----- 30 ha
2.1.5	Seeding of plots for grass cultivation	Activity was carried on the 6 sites.
2.1.6	Purchase of fruit plants and vegetable seeds w	Activity was carried out on the 6 sites
2.1.7	Establishment of new tree seedling nurseries for women organisations	Nurseries specific to each household were developed.
2.1.8	Reforestation of climate resilient species to reduce evapotranspiration, stabilise soil, and mitigate the loss of vegetation by grazing.	Activity was highlighted and carried out on the 6 sites.
2.2.1	Training the staff of the Ministry of Agriculture on drought tolerant agricultural practices	- Activity was not carried out due to lack of time.
2.2.2	Training of all agro-pastoralist households by specialists in extension services to help them develop agricultural and technical production methods that are resilient to climate change.	Beneficiaries have received several in situ training courses, which were delivered by agriculture specialists who are experts in the field of fodder crops, technical routes of market gardening, and fodder crops.
2.3.1	Construction of fodder, agricultural products, and milk storage facilities (21m x 9m) with scale weighing equipment	Two storage warehouses were built as well as a mini-dairy.

Table 8: Rating of the progress made towards the achievement of the second result (R2)

Assessment of progress towards achieving the second result (R2)		
		Explanation
R2: Developed agricultural perimeters	MS (Moderately Satisfactory)	All planned activities were completed taking into account changes related to the initial targets. The reduction of the total number of hectares from 228 ha to 30 ha and the number of families from 228 to 96 families (as decided by the Steering Committee) did not reach the highest number of expected beneficiaries.

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Result 3: Secured access to micro finance products

The result of component 3 is crucial to sustain the achievements of the project. Being dependent on the first two components, there was a delay in implementing the activities of component 3. However, the delay was filled by the positive results the other components have achieved. According to the final evaluation, training courses for cooperatives were carried out, and some successful partnerships have been forged, particularly with CPEC and SEAS, whose objective is to ensure sustainability of the project and sustainability of micro-finance for self-financing agricultural cooperatives.

The details of the activities carried out are presented in the following table according to the project document:

Table 9: Details of the activities carried out for the 3rd result (R3)

3	Component 3: Development of climate resilient agro-pastoral enterprises through secured access to finance.	
3.1.1	Development of three-stages micro-finance product including a safety net program for cooperatives, nano-finance for small, flexible loans and microfinance loans for diversified, income-generating activities with the assistance of international and national experts.	<ul style="list-style-type: none"> - Studies on micro-finance products development strategy have been conducted. Study on the taxation of the microfinance sector has been conducted. Study on the development of the knowledge management plan Study on the development of knowledge management plan has been conducted.
3.1.2	Focused training for ADDS and CPEC to give them expertise in teaching the principles of micro-finance for adaptation- oriented products to project's beneficiaries	Activity has been carried out
3.1.3	Preparation of technical guides detailing the principles of microfinance and sustainable agricultural activities.	Activity has been carried out
3.1.4	Development of mobile banking to provide microfinance services to beneficiaries without having to travel	Activity was cancelled by the steering committee because there is no mobile signal or very poor signal at project sites. Besides, it is difficult for agro-pastoralists to use mobile phones regularly because of lack of electricity.
3.1.5	Long-term and periodic monitoring and evaluation of adaptation-oriented microfinance	- Activity has not been carried out.
3.2.1	Organization of agro-pastoralists and pastoralists in cooperatives and train cooperatives on loan repayment programs, savings accounts, sustainable farming practices and the diversification of agricultural products	4 agro-pastoralists cooperatives have been established.
3.2.2	Development of diversified women's microfinance groups with emphasis on women's empowerment	- Activity was carried out. It is necessary to underline the centre of mini-dairy, which was set up at the site of Kourtimalei and is managed by

		women. The centre processes and sells milk, and it contributes to women empowerment.
3.3.1	Organization of agro-pastoralists into cooperatives which will provide them with advice on measures to improve microfinance products.	Training was conducted for 96 direct beneficiaries.
3.3.2	2 workshops per year organized by ADDS to facilitate the documentation and collection of ideas to promote sustainable micro-finance products.	Activity did not take place due to the delay in implementing the activities of components 1 and 2.
3.3.3	Formalization of community-driven adaptation training to then be integrated into the National Programme for Food Security and the National Micro-finance Policy	Activity did not take place.
3.3.4	Organization, centralisation and promotion of lessons learned on the good practices of agropastoral perimeters through the written channel, video reports, workshops and study trips	Video reportage, television and other written press activities were realised.

In view of the above, the evaluation team assigned the Ratings as detailed in the table below:

Table 10: Ratings of progress towards the 3rd result(R3)

Assessment of the progress towards achieving result 3(R3)		
		Explanation
R3: Access to secure micro finance products	S (Satisfactory)	Activities related to this result were achieved despite the delay in starting the component

3.3. Remaining barriers for the achievement of results:

As part of the final evaluation, the analysis focuses on the management mechanism, business planning, funding, the monitoring and evaluation system, stakeholder participation, internal and external project communication, and the overall implementation of the project. This is to propose solutions to the problems identified and increase the efficiency and effectiveness of the implementation of the project

A. Management Arrangement

The Ministry of Habitat, Urbanism and Environment is the institution responsible for all environment and climate change issues in the country and is responsible for the coordination of all actions related to climate problems. To this end, it should work closely with other governmental and non-governmental agencies.

According to the final evaluation mission, the implementation, monitoring and evaluation control bodies were established in accordance with the project document, with clear terms of reference focusing on the expected results. The support of the UNDP is very adequate and responds to the requests of the PMU. To support the work of the PMU, the different committees hold meetings on regular basis.

In terms of effectiveness, while implementation arrangements have been effective, it is still important to stress that UNDP's follow-up missions to support the PMU in monitoring and evaluation towards achieving the expected results are inadequate.

B. Role of UNDP

UNDP has consistently supported the work of PMU by attending the meetings of the Technical Committee and performing regular field visits, and providing the necessary guidance in order to achieve the expected results. However, the project managers complained about the delayed disbursements, which consequently delayed the execution of some activities. Furthermore, UNDP did not give top priority to completing the activities in a timely manner compared to the annual action plan. As for the field visit reports, UNDP did not prepare a quarterly monitoring report to assess the status of the project.

Finally, the analysis of the different PVs highlights UNDP's concerns about the visibility of the project at the local and national levels as well as the impact of the project on nutrition and women. However, the PMU did not follow up these concerns immediately.

C. Workplan

The establishment of necessary bodies (Steering Committee, Technical Committee, and especially that which are related to field activities) and institutional arrangements have led to a significant delay in the actual start of the project. The planned start-up was effective only administratively in September 2012, but the technical studies (hydrological, soil, geophysical, etc.) that marked the start of field activities only took place from September 2013 with 12 months of delays (Ref 2013 Annual Report).

The project has experienced a significant delay in its effective start not only to make the institutional arrangements, to putting in place all the necessary elements such as the Steering Committee, the Technical Committee but especially in terms of on-site activities. The planned starting date was only effective at the administrative level in September 2012, but the technical studies (hydrological, soil, geophysical, etc.) that marked the beginning of field activities only took place in September 2013 therefore with 12 months of delays (Reference: 2013 Annual Report)

Every year, the PMU prepares a work action plan that is approved by the Steering Committee, which specifies a timetable of activities and a quarterly and semi-annual work plan with specific responsibilities.

D. Project Financing and Financial Management: Project Efficiency

The assessment of efficiency was based on the following main question, which is supported in the evaluation matrix: To what extent were the results achieved using available resources in a timely manner? This question is specifically concerned with matching the use of resources against the results achieved during the period, and also to examine the deadlines assigned to deliver the products.

The financing of the project is fully covered by the Adaptation Fund without any co-financing request. In terms of financial management, it should first be noted that the project is 100% in terms of budget implementation (See table below).

Table 11: Percentage of Budget Implementation by Component and Year

Designation	Budget in US \$ (a)	(*) Total Expenditure USD (b)	Percentage of implemented budget
component 1	1910000	1910000	100%
component 2	1498000	1498000	100%
component 3	477800	477800	100%
Project management	407800	407800	100%
MIE Fees (UNDP)	364 956	364 956	100%
TOTAL	4658556	4658556	

Source: UNDP Combined Financial Report (CDR)

(*) Details of the total expenditure are given in another table in the Annex.

The financial control system is well established and operational in view of the audit missions organised each year and the preparation of plans for implementing the recommendations of the audit. However, some of the project's targets (number of dams) have been revised downwards because infrastructure costs were underestimated in the economic calculations during the formulation of the project document.

Table 12: Financial Implementation

	Incurring Expenditures (USD) in CDR (UNDP Combined Financial Reporting)	Percentage of Financial implementation
Year of 2012	114254,36	2,68%
Year of 2013	737 557,24	17,27%
Year of 2014	689 253,75	16,14%
Year of 2015	278 010,57	6,51%
Year of 2016	1 095 449,37	25,65%
Year of 2017	913 125,08	21,38%
Year of 2018	442 528,30	10,36%
Total	4 270 178,67	100

Source: CDR (UNDP Combined Financial Reporting, not including MIE FEES from UNDP)

The analysis of Percentage of Financial implementation shows the delay in project implementation. Examining the first years in the life of the project, it can be noted that the percentage of the financial implementation was significant in the years 2016 and 2017, marked by considerable material achievements such as:

- For the year 2016:

- Completing three exploitation boreholes (Didjander, Yabbehé and Omar Djagga) in the prefecture of Arta,
- Completion of a fourth drilling of exploitation at Wadjalé in the prefecture of Arta
- Completion of a fifth drill at Qor-Qaloc in the prefecture of AliSabieh to secure agricultural perimeters of 12 ha area,
- Distribution of 11 motor pumps for the beneficiaries of the new agricultural perimeters of Hamboucto in the prefecture of Ali-Sabieh,
- Providing training and support to the beneficiaries regarding agro-pastoral technique and spatial organization in each garden, - Execution of work for the agricultural perimeter of Kourtimalei,
- Rehabilitation of the water piping system of the agricultural perimeter,
- Development of plots to serve the eight new agricultural perimeters at the Hamboucto site in the prefecture of Ali-Sabieh,
- Completing the construction and rehabilitation works of the eight agricultural perimeters at the Hamboucto site in the prefecture of Ali-Sabieh,
- Distribution of agricultural tools to the beneficiaries of the new perimeters of Hamboucto,
- Establishing a mini-dairy centreat the Kourtimalei site in the prefecture of Arta to develop the milk sector and empower women.
- Delivery of materials for the promotion of the milk sector on the Kourtimalei site,
- Finishing the rehabilitation of an existing 2 hectares agricultural perimeters at the Omar Djagga site.

- For the year 2017:

- Completing the drilling of borehole at Omar Djagga with an operating flow of 25m³ /h according to the drilling follow-up study conducted by CERD,
- Building a 150 m³ water tank for the agricultural perimeter of Kourtimalei,
- Work is in the progress to equip Omar Djagga's drilling with solar power,
- Finalisation the building of an operational drilling at the Wadjalé site in the prefecture of Arta,
- Completing the construction of an exploitation drilling at the Qor-Qaloc site in the prefecture of Ali-Sabieh,
- Completion of the water supply works at the Kourtimalei site to secure access to water for the agricultural perimeter of Kourtimalei,
- Completing the installation of equipment at the Yabbehé drilling (pump, generator, etc.), and the construction of a bunker for the generator,
- Completing the borehole works at the Hamboucto site to secure access to water for new agricultural perimeters, -
- Finishing the topographical survey works for developing the future agricultural area of Omar Djagga,

- Training agro pastoralists on raw milk processing, preservation and processing techniques.

According to the annual reports of the PMU, the years 2016 and 2017 marked many material achievements (activities) for the project, which started actually by the end of 2016. As for the previous years, namely the years 2013, 2014 and 2015, work was limited to financing site identification, environmental impact and support and training studies for beneficiaries, which reduced the time needed to construct physical projects such as boreholes within the time allowed by the project document.

The project has undergone financial audits (5 times) that all of which reflected the accounting and financial procedures of the expenses incurred. However, the financial audits revealed a number of anomalies:

- According to the financial audit conducted in February 2018, some of the equipment purchased were not operational such as the financial and administrative management software (SUCCES), which was acquired for the benefit of the two projects: "Development of agro-pastoral perimeters as an adaptation strategy to climate change for poor rural communities in Djibouti" and "Supporting Rural Community Adaptation to Climate Change in Mountain ". Nonetheless, actions have been taken to make the software operational by the end of the first half of 2018.
- According to the Financial Audit of 2017, there were some errors detected related to recording values and using appropriate accounts. For example, the total value of the equipment acquired in 2016 is USD 20,475.30 all the while the accounts balance that recorded for the equipment in the CDR (January to December 2016) is USD 23,43.21 with a difference of USD 2,955.93, and it is recorded under the account "supplies" (envelopes, chrono, archive box, etc.). The close collaboration of UNDP and the PMU has made it possible to avoid mistakes in the future by recording the various operations under the appropriate accounts.
- The companies selected to carry out the works at the start of the project, according to the financial audit of March 2015, have not been the subject of an in-depth evaluation regarding their technical and financial capacities as in the case of "Plot development and ground-level transport works on the perimeter level at Qor Qaloc. On the instructions of the UNDP, the PMU has set up a formalization procedure for evaluating the technical and financial capacities. Upon the instructions of the UNDP, the PMU has developed a procedure for formalising the assessment of technical and financial capacities.
- The procurement procedures were not respected at the start of the project (as indicated in the financial audits of 2013 and 2014).
- The recommendations of various audits and the advice of the UNDP helped in improving the quality of contracts. Now, the project requires suppliers to submit a bank guarantee on works which allows the project to recover the sums paid in case the delivered work turns out to be defective.

All these anomalies that the various financial audits have revealed indicate there is a lack of experience in respect of the accounting and financial management of the project. Despite having qualified staff within the PMU, contracting an accounting firm would have helped the project to avoid making any mistakes in recording and accounts keeping.

E. Level of monitoring and evaluation system

In terms of monitoring and evaluation and implementation, the application of UNDP procedures is the rule for the Project Management Unit (PMU). For this purpose, it is important to make a note here if this system worked at the start of the project.

However, there was no appropriate monitoring and evaluation mechanism during the implementation of the project since there was no dedicated monitoring and evaluation officer, and the weakness of the human resources of the PMU created a slight lack of visibility and responsiveness for carrying out certain activities. To ensure that progress towards results is achieved in accordance with the indicators, monitoring and evaluation remains essential.

The annual reports of the Technical Committee made it possible to identify the adjustments made by the PMU in consultation with UNDP and funders, and thanks to the follow up missions, it was noted that it was difficult to achieve certain targets (e.g. 228 hectares for 228 families, and the construction of 6 boreholes). Finally, the strategic direction to substitute the construction of boreholes with the rehabilitation of wells is being taken into account by the PMU due to the difficulties of implementing the project according to the project document.

At this level, it is important to underline that the recommendation of the mid-term evaluation to restructure the Project Monitoring Unit and revising the monitoring and evaluation plan was followed due to the large load of work to be done in the remaining period. Accelerated work plans have been drawn up and the coordinator or technical experts conducted weekly field visits in order to monitor the progress of the project.

F. Stakeholders Engagement

The stakeholders identified in the project document are: Ministry of Habitat, Urbanism and Environment, Ministry of Agriculture, Livestock, Fisheries, Water and Fisheries Resources, Secretariat of the State for Social Affairs, CERD, CPEC, ADDS, local authorities and beneficiaries. The partnership agreements are made directly between the PMU and the various technical departments of the line ministries, such as the Directorate of Rural Hydraulics, the Department of Major Works, and the Directorate of Agriculture, etc. for carrying out the activities that they have the necessary expertise to execute.

The active participation of all stakeholders in the project reflects their awareness of the challenges and expectations of rural communities in terms of water supply and income generating activities.

G. Reporting

The reporting capacity is sufficient in relation to the volume of work and the number of people in charge within the PMU. The sharing and communication of information by the steering committee was important to ensure participatory and adaptive management of the project.

H. Communications

The project has availed of the communication strategy which gave it perfect visibility. The results of the BARA project have been covered in so many regional and national articles, published by known press agencies such as Jeune Afrique or Nation (Local Journal).

It is noteworthy to mention that the recommendations of the mid-term evaluation made the PMU develop a better communication plan to ensure better visibility and ownership of the project's actions. However, at the institutional level, the participation of certain key players such as the State Secretariat for Social Affairs, the ADDS and the CPEC took place late, which affected the ownership of the project.

For this purpose, the evaluation team, taking into account all the aspects indicated above, assigned the note below to this section:

Table 13: Implementation assessment and adaptive management

Assessment of progress towards achieving R3 results		
		Explanation
R3: Secured access to micro finance products	S (Satisfactory)	Corrective actions were implemented through the implementation of an accelerated work plan that was rigorously followed while carrying out the remaining activities of the project

3.4. Sustainability and Project Impact

The project has three remarkable characteristics, namely:

- The realization of large infrastructure such as dam, boreholes, etc;
- The development of agricultural perimeters on several sites (6 agricultural perimeters);
- The transformation of poor rural communities from breeders into agro-pastoralists.
-

It is important to understand the great importance of the project for the populations who live in rural areas who after losing all their livestock, become exposed to permanent climate risks because of the adverse effects of recurrent droughts that are caused by climate change. These populations are considered climate refugees in their own country and face a survival problem thus need help and assistance to be more resilient to the effects of climate change.

There are no major obstacles that hindered achieving the expected results, but it is important to mention some important points to consider, including:

- Some delays were observed in disbursements which resulted in causing delays in the execution of activities within the deadline;
- The lengthy delays to signing partnerships and the late engagement of certain stakeholders such as SEAS, ADDS and CPEC;

The sustainability of the project's achievements depends on some key determinants, upstream and downstream. The former refers to the quality of the delivered products, and the latter refers to the level of beneficiaries' ownership and their ability to take over and deliver the expected results. The absence of quality products will prevent us from envisaging sustainability. Further to the point, if good products have been delivered but are not sustained as they should be, and the beneficiaries are not really ready to execute them similar to how they were in the previous programming cycle, talking about sustainability will no longer be an option to consider.

The 5 years period for building these infrastructures is insufficient to carry out all the activities and to reach the objectives envisaged in the project. As a result, the analysis of the impact of this project requires a longer period of time in order to assess the impact of the project on the living standards of the targeted populations and on the environment.

As for the risks identified in the project document, the final evaluation mission generally noted that there is a sustainability mechanism in place to maintain the project's activities over time. Apart from the fact that infrastructures such as dams and boreholes will be managed by the Ministry of Livestock and Hydraulic Resources, the sustainability of the other activities are not called into question due to the lack of funds necessary to continue the actions of the project (which will lead eventually to the abandonment of certain agricultural perimeters) because some of the agricultural cooperatives set up (at Kourtimaleh and Oumbouctou sites) have started to cover some of their own operating costs.

The second component that the project attempts to address - apart from water access - is the access to micro credit products. The PMU developed a strategy that aims to ensure the appropriation and sustainability of the project's achievements after the Adaptation Fund financing ends; thus, it facilitated it through forging partnerships with several Ministries and, in particular, the State Secretariat for Solidarity (CPEC, ADDS, etc.).

In terms of beneficiaries, the project has allocated 30 hectares of land to each family of the 96 families. Diversification into agro-pastoralism that the project aims to achieve will enable families practicing breeding to adopt appropriate activities (farming or breeding) while taking into account the seasonal factors of agriculture to constantly be able to meet their needs. By doing so, not only has the project made it possible to strengthen the resilience of these families to climate shocks, but also succeeded in preventing rural exodus.

The indirect effects that the project has caused on the beneficiaries is the need to create an enabling environment for the families and their children in terms of health and education, because rural exodus is not caused by the lack of water alone, but also by the lack of schools, and health facilities, etc.

The sustainability of the project is subject to the financial support which will no longer be available upon the end of the project. However, although the project document does not include an exit strategy, the government has taken the necessary actions to ensure the financing of some of the project's activities (maintenance of boreholes, loans granted to agricultural cooperatives, etc.). The various sectoral departments will ensure the governance of the project's achievements (example: The Minister of Livestock and Hydraulic Resources will ensure the maintenance of drilling and the Ministry of Social Affairs and Solidarity will ensure the

functioning of agricultural cooperatives that have been created through the loans granted by the *Caisse Populaire d'Epargne et de Cr dit* (CPEC).

The sociological aspect of the project was also analysed through gender. The distribution of agricultural perimeters between beneficiaries was made based on the vulnerability criteria of individuals, households and gender. The number of women (individuals or breadwinners) with land plots is 21 out of a total of 31 for the Omar Jaggaac site, which is almost the same for the other sites. Another highlight for gender mainstreaming in the project is the award of dairy centre management for women only. Finally, women hold an important place in the Cooperative Management Committee. In the same way, work on agricultural plots is done in a collective way during the summer period (high level of production). During the periods of low production (September - March), work on agricultural plots is carried out by women to cultivate forage for livestock while men practice their pastoral activities. However, the project has managed to mitigate the socio-cultural problems affecting women in the Djiboutian society and, in particular, those living in rural areas. Women fully participate in the decision-making process in the management of agricultural cooperatives.

As for the aspect of environment, the Environmental and Social Impact Assessment (ESIA) did not identify any major risks related to the project, and provided some recommendations to increase the overall environmental benefits. For environmental sustainability, the project is expected to help in reducing land degradation and impoverishment through increasing arable lands, and the exploitation and sustainable production of allocated agricultural perimeters. The Ministry of Urbanism, Environment and Tourism will carry out the environmental sustainability of the project interventions. The different techniques shared with the beneficiaries of the perimeters during the training sessions focus on sustainable production so that agricultural activities can be maintained throughout the year and to surmount the weather conditions at certain periods. In general, the government considers the sustainability of agricultural development projects a high priority for ensuring equitable and sustainable development in the regions (SCAPE 2015-2019 and Vision, "Djibouti, 2035").

The following is the rating that the evaluation team has assigned to sustainability.

Table 14: Rating of the Sustainability Assessment

Sustainability Assessment		
		Explanation
Sustainability	L (Likely)	The risk is mitigated thanks to the sustainability mechanism. Agricultural cooperatives are developed in order to become autonomous.

IV. Conclusions and Recommendations

4.1 Conclusion

The project "Development of agro-pastoral perimeters as an adaptation strategy to climate change for poor rural communities in Djibouti" comes as a response to address the issue of recurrent droughts, which has resulted in water scarcity and people's dependency on food distribution. For these reasons, improving the capacity to mobilise and manage underground and surface run-off water has become critical for the resilience of local communities through the development of agro-pastoral systems that are associated with their well-being.

The project is of a critical importance considering the impacts of the repeated droughts happening because of climate change on rural communities. Failing to address this problem would pose the risk of living in a permanent chaotic situation. All efforts have been made to ensure the success of this project despite the difficulties.

The project is aligned with the country and UNDP objectives in respect of fighting against poverty and climate change, governance, improved governance, women's empowerment, prevention and recovery from natural disasters. Furthermore, the objectives of the project are in line with the Government's Growth and Employment Promotion Strategy (SCAPE, 2015-2019), which attaches a high importance to the achievement of these objectives, particularly, the fight against thirst and hunger through developing strategies for increasing arable land and rational water management whose objectives are: (i) to develop water infrastructures capable of improving water accessibility, (ii) to support integrated development in order to reinforce urban development and the cohesion of the region, (iii) to promote good local governance, (iv) to promote economic development strategies that value local resources, (v) and to develop a human capital to support sustainable development actions. Moreover, the objectives of the project are in accordance with the "Vision Djibouti 2035" which aims to make the country a regional and international economic, commercial and financial centre that ensures the wellbeing of the Djiboutian people in a peaceful, safe and clean environment.

To support the government in its efforts to achieve the various Sustainable Development Goals (SDGs) and mitigate the impacts of climate change on vulnerable populations, partners in government and, UNDP, in particular, are complying with this national goal by incorporating strategic priorities into the CPAP (Country Program Action Plan, 2013-2017) through the results of Axis 1 "Strengthening governance and contribution to economic development" and Axis 3 "Contribution to the resilience of populations to natural hazards and food insecurity". Similarly, the different UNDAF and, in particular, the next one for the period 2018-2022 is the priority of the government through: - Strategic Priority 1 "Inclusive and Sustainable Economic Growth and Poverty Reduction", - Strategic Priority 2 "Strengthening of Social Services and Inclusive Human Development" and - Strategic Priority 4 "Strengthening Resilience and Promoting Regional Equitable Development".

Likewise, the project's objectives contribute to achieving the Sustainable Development Goals:

- SDG 1 "End poverty in all its forms and all over the world", and SDG 2 "End hunger, achieve food security and improved nutrition and promote sustainable agriculture" through allocation and exploitation of agricultural perimeters.

- SDG 3 "Ensure healthy lives and promote well-being for all at all ages" through the creation of income-generating activities;
- SDG 5 "Achieve gender equality and empower all women and girls" through the establishment and management of a dairy centre in Kourtimaleh, and the allocation of agricultural perimeters to women which contributes to the achievement of this SDG;
- SDG 6 "Ensure availability and sustainable management of water and sanitation for all": the first component of the project addresses water security and sustainable management of water resources which has made it possible to supply water to remote and rural communities;
- SDG 12 "Ensure sustainable consumption and production patterns" Training project beneficiaries on agricultural production techniques by agricultural experts take into consideration the aspects of seasonality, culture and environment to ensure sustainable exploitation and production of the agricultural perimeters granted to project beneficiaries;
- SDG 13 "Take urgent action to combat climate change and its impacts" and the OSDG 14 "Conserve and sustainably use the oceans, seas and marine resources for sustainable development": The main objective of the project is to mitigate the impact of climate change on vulnerable populations. In fact, the project not only has it managed to provide access to water, but also increased arable lands by allocating agricultural perimeters. The exploitation of these allocated perimeters contributes to ending the loss and degradation of land and biodiversity.

In fact, the conducted activities have made it possible to mobilise a large volume of water at certain sites such as Kourtimalei and Ombouctou, and establishing management committees prevented the occurrence of conflicts and made it possible to perpetuate the achievements of the project. Due to the poor physical capacity of the breeders made the PMU to reconsider the size of each agricultural perimeter and reduced it from 1 hectare to 0.25 hectare per each beneficiary family.

Despite the efforts of the PMU in terms of monitoring, evaluation and participatory planning, the weakness of its staff has affected the timely implementation of some activities, the follow-up of the recommendations of the UNDP supervision missions, and bringing the project team closer to the beneficiaries.

After concluding the final evaluation mission, we have proposed the following recommendations.

4.2 Lessons learned and recommendations

There is ample reason to look into whether the elements that were used to analyse the relevance of the program, namely the poverty reduction approach and the selection criteria for intervention zones and construction of boreholes, were sufficient. In our opinion, other elements should have been studied in depth, such as the capacities of the implementing agencies, and the implementation mechanisms, etc. The fact that a project is relevant does not necessarily imply that it is feasible, as can be noted in the downward revision that happened to some targets. There was no feasibility study for the different results or activities that actually considered the risk of exorbitant cost associated with the implementation of some activities.

In overall, the implementation of the project was carried out according to the annual action plan that was developed by the PMU but some difficulties have emerged and they should be taken into account to ensure effective and efficient management of future projects. Below are some of the lessons learned that will guide the subsequent support of United Nation System to the government in terms of project management:

- Having various challenges, such as water security, agricultural development, establishment of agricultural cooperatives and microfinance products, addressed in a single project makes the project too ambitious, and one of the main causes of the budget fluctuations and targets too difficult to achieve. Obviously, all this makes it difficult to analyse the effectiveness and efficiency of project implementation, since this problem was not anticipated at the time of the formulation of the project activities which should be based on the feasibility of the project and realistic factors. As a result, the main targets (indicators) were subject to a notable decline i.e. the number of beneficiary families dropped from 228 to 96 families only because of cost and installation and equipment, and from granting each family 228 hectares to 30 hectares. These difficulties have been solved through the flexibility that must be observed in the re-adjustment of the activities and related targets, taking into account the characteristics of the budget cycles and the operation methods observed at the time of the project implementation.
- The participatory approach should be a priority at the different stages of the project's planning, implementation, monitoring and evaluation, in order to improve the ownership of the project. The participation of civil society organisations in the Steering Committee is considered a real asset as it will strengthen their partnership with the PMU and the UN. More information on the project should be provided to the CSOs that are close to their level of development in their region or locality.
- The poor articulation of the project's monitoring and evaluation mechanisms remains a major limitation for the collection of data on the operational and financial implementation of the project. This is noted in terms of indicators, frequency of data collection, etc.
- UNS contributions to the project implementation need to be more targeted and focus on areas where comparative advantage is evident (expertise, advice, report writing, accounting and financial management procedures) with a focus on the deadlines of the project.
- The reformulation of activities, indicators and targets should be included in a "Revised Project Document" approved by UNDP and donors.
- Not contracting an accounting firm to keep the financial and accounting accounts has led to making errors in the recording of transactions and use of appropriate accounts.
- An exit strategy has not been developed to ensure the sustainability of project achievements. However, the continuation strategy for this project will be done on "case by case" basis.

At the end of our final evaluation mission, we present the following recommendations for the management of similar projects in the future:

- a. **Corrective actions for the design, implementation, monitoring and evaluation of the project:**

Project Design:

1. The project document should distinguish between the timeframes listed under the sites' identification studies and those of the main physical realizations such as the construction of boreholes;
2. Specific and general objectives should be specified correctly along with appropriate targets and indicators (indicators of change and not achievement indicators);
3. The indicators of change should be formulated in relation to performance indicators.

Result 1: Sustainable access to safe water resources

4. Conducting identical activities in similar projects in order to provide a sustainable solution to access safe water;
5. In terms of capacity building, the monitoring and evaluation of dams and boreholes should be integrated into the Ministry of Livestock, of Water and Hydraulic Resources as it has a mandate department of civil work (Grand Travaux);
6. Developed cooperatives to be supported by state agencies such as the State Secretariat for Social Affairs (through the ADDS and the CPEC), the Ministry of Agriculture, etc.

Result 2: Development of agro-pastoral perimeters

7. Establishment of structures through which the Ministry of Livestock and Hydraulic Resources and beneficiaries can be brought together to ensure water security;
8. Provide beneficiaries with adequate training on the expansion of agricultural perimeters;

Result 3: Micro finance products for small enterprises

9. Implement all of the signed partnerships so that agricultural cooperatives can easily access microcredit products to help them sustain their agricultural activities.
10. Integration of agricultural cooperatives into a comprehensive national policy to strengthen the primary sector;

Sustainability

11. Exploring other sources of funds (public and private);
12. Implement the recommendations of the ESIA (**environmental and social impact study**) to the extent possible by the Ministry of Livestock and Hydraulic Resources;
13. Planning a PNA (national agricultural policy) as part of the overall national policy.

Development of the logical framework of the results:

14. Future projects will require coordination mechanisms be in place to collect data on indicators, particularly outcome data, and to refine output indicators so they can be quantifiable and more informative regarding changes rather than achievements.
15. It is necessary to readjust the target values of the indicators to be more realistic.

16. Activities should be, where possible, linked to the outcome indicators.

Project Book keeping:

17. At the start of similar projects, it is necessary to contract an accounting firm to handle the bookkeeping and book auditing work of the project.

b. Proposed actions to reinforce the initial benefits of the project

18. Ensuring the commitment of the State through ministries and local communities;
19. Involving local authorities in the Steering Committee;
20. The regions need to strengthen cooperatives and micro finance products in their favour;
21. Forging partnerships and provide necessary training.

C. Recommendations to promote women's empowerment:

22. Promoting women empowerment using the example of the dairy centre that was established by the project;
23. Encouraging the development of women-managed agricultural cooperatives by providing the necessary funds for their operation;
24. Developing microfinance products for women's empowerment.

D. Recommendation to ensure Project Sustainability:

25. Including an exit strategy in the project document to ensure the sustainability of project achievements