

UNEP GEF PIR Fiscal Year 2023

Reporting from 1 July 2022 to 30 June 2023

INSTRUCTIONS TO COMPLETE THIS PIR

- 1. Instructions in blue are directed to Task Managers / Administrative Officers
- 2. Instructions in red are directed to Project Managers and Executing Agencies
- 3. When filling up the respective cells, use the Normal style from the template. The text will look like this.
- 4. Fields in green are new additions since last year's PIR.

1. PROJECT IDENTIFICATION

1.1. Project details

This entire table is to be prepared by Task Managers

	GEF ID.: 5021	Umoja WBS: SB-000698.18	
Identification Table	SMA IPMR ID: 20919	Grant ID: S1-32LDL-000018	
	Project Short Title: LDCF-2 proj		
Project Title	Implementing adaptation technologies in fragile ecosystems of Djibouti's central plains		
- 48 months	48 months		
Duration months Age	108 months		
Project Type	Full Size Project, Least Develop	ed Country Fund (LDCF)	
Parent Programme if child project			
Project Scope	National		
Region	Africa		
Countries	Djibouti		
GEF Focal Area(s)	Climate change adaptation		
GEF financing amount	USD 7,360,000		
Co-financing amount	USD 14,170,000		
Date of CEO Endorsement/Approval	11 March 2014		
UNEP Project Approval Date (on Decision Sheet)	Insert the date as per Decision Sheet (As per date on the project approval sheet signed by the Divisional Director approving the UNEP GEF Project)		
Start of Implementation (PCA entering into force)	15 July 2014		
Date of Inception Workshop, if available	November 2014		
Date of First Disbursement	20 August 2014		
Total disbursement as of 30 June 2023	US\$ 6 839 096,04		
Total expenditure as of 30 June 2023	US\$ 6 677 909,84		
Midterm undertaken?	Yes		
Actual Mid-Term Date, if taken	January 2019		
Expected Mid-Term Date, if not taken	Insert the expected Mid-Term Review/Evaluation completion date if not taken		
Completion Date Planned – original PCA	Technical completion: June 2018; financial closure: December 2018		



Revised – Current PCA	Technical completion: March 2023; Financial closure: June 2023
Expected Terminal Evaluation Date	August 2023
Expected Financial Closure Date	June 2023

1.2. Project description

Djibouti is vulnerable to the effects of climate change, particularly those related to changes in rainfall patterns. These changes negatively affect the ecosystems and lifestyles of rural communities, particularly pastoralists and farmers. The government currently has very limited financial and material capacity to deal with present and future threats caused by: i) climate change; and (ii) overexploitation of ecosystem products and services. Therefore, the resources of the GEF Least Developed Countries Fund were used to implement the project entitled "Implementation of adaptation techniques in fragile ecosystems of the central plains of Djibouti".

This project aims to increase the resilience of local communities to climate change and encourage the government to take into account the effects of climate change in its action program. To achieve this, the LDCF project uses a combination of Ecosystem-based Adaptation (EbA) and hard infrastructure interventions supported by institutional and capacity development activities to reduce the climate vulnerability of local communities living in the Hanlé Plains of Dikhil Region and in the inland plains and coast of Tadjourah Region (hereafter referred to as Hanlé and Tadjourah). These districts were identified in Djibouti's NAPA as being particularly vulnerable to climate change. The project aims at enhancing the delivery of ecosystem goods and services under conditions of climate change by: i) restoring degraded *Acacia* woodlands and mangroves; ii) using hard infrastructure to combat droughts and floods; and iii) establishing agropastoral plots to increase agricultural productivity and diversify livelihoods. The project uses a diverse range of adaptation technologies including *inter alia*: i) hard infrastructure such as gabion walls and levees to reduce the severity of flooding; ii) installation and rehabilitation of boreholes, including solar-powered borehole pumps; iii) rainwater harvesting techniques such as straw mulching, *Zai* and contouring; iv) improved climate-resilient agricultural techniques such as drip irrigation and distribution of comprehensive packages of high-quality farmer input kits; and v) climate-resilient alternative livelihoods such as apiculture, aviculture and marketing of crafts.

The project includes four components:

Component 1: Protection against water-related climate change hazards

This Component aims to increasing the resilience of communities in Hanlé and Tadjourah. The vulnerability to floods of communities in Tadjourah Ville was reduced through the rehabilitation of an existing sand levee in the Marsaki wadi. Moreover, in order to address water scarcity, Component 1 undertook hydrological studies to generate detailed information on the availability and quality of ground and surface water in Hanlé and Tadjourah. These studies were used to guide the construction of boreholes and reservoirs in order to increase the availability of fresh water. As a result, the project increases the resilience of local communities to drought.

Component 2: Ecosystem rehabilitation, recovery and resilience

This complements the hard infrastructure built under Component 1. The objective of this component is to reduce the vulnerability of local communities to climate-related hazards through the strategic restoration of degraded ecosystems that will provide a buffer against the negative effects of climate change. Under this component, *Acacia* woodlands in Hanlé adjourah as well as mangrove areas in Tadjourah are being restored by planting climate-resilient tree and mangrove species. Protection measures to exclude livestock from the restoration areas have been put in place.

Component 3: Sustainable and resilient livelihoods

This Component aims to increase the climate resilience of livelihoods practiced by communities in the project areas through two complementary approaches, namely: i) integrating climate-resilient techniques into traditional livelihood practices; and ii) introducing climate-resilient alternative livelihoods. The climate-resilient livelihood practices developed in Component 3 (i.e. agropastoralism, apiculture, aviculture and handcraft) will be complemented by a public awareness campaign on the benefits of these alternative livelihood practices. Diversification of livelihoods will increase the resilience of the local communities by reducing reliance on a narrow range of resources such as pasture lands. Consequently, this diversification will decrease poverty and food insecurity.



Component 4: Institutional capacity for adaptive development and communities' resilience

Component 4 of the LDCF project complements the diverse economic activities introduced or reinforced in Component 3. Accordingly, the primary focus of Component 4 is the development of the appropriate institutional and technical capacity for adapting Djibouti's agricultural and water sector to climate change at both the national scale and the local scale. This will be done through the dissemination of knowledge about climate change and the sustainable use of natural resources; training of policymakers; and the creation of local cooperatives and committees to promote, train and maintain the new climate resilient livelihoods developed. As a result, the LDCF resources will have long lasting effects on the Djibouti economy long after the termination of the project.

In a nutshell, the project intends to achieve:

- reduced or averted negative impacts of droughts and floods.

- increased productivity and climate-resilience of ecosystems.

- diversified livelihoods that are sustainable, climate-resilient and contribute to maintenance of ecosystem services; and

- increased capacity of institutions and communities to proactively adapt to climate change.

The UN Environment is responsible for the implementation of the project by providing oversight and support. The Ministère de l'Habitat, l'Urbanisme et l'Environment (MHUE) renamed Ministry of Environment and Sustainable Development in 2020 is responsible for implementing the interventions.

1.3. Project Contacts

Division(s) Implementing the project	Climate Change Adaptation Unit, Ecosystems Division, UNEP
Executing Agency(ies)	Ministry of Urbanism, Habitat and Environment (MHUE) renamed Ministry of Environment and Sustainable Development (MEDD)
Names of Other Project Partners	Ministry of Agriculture, Livestock and Fisheries in charge of hydraulic resources (MAEM-RH), National Water and Sanitation Office of Djibouti (ONEAD), Djibouti National Research Centre (CERD), National Meteorological Agency (ANM), Social Development Agency of Djibouti (ADDS), Regional government of Tadjourah and Dikhil, Agropastoralism Association of Hanlé and Association of Women in Tadjourah
UNEP Portfolio Manager(s)	Jessica Troni
UNEP Task Manager(s)	Eva Comba
UNEP Budget/Finance Officer	Bwiza Wameyo-Odemba
UNEP Support/Assistants	Linda Chemutai Choge, Ruth Mutinda
EA Manager/Representative	RIRACHE ROBLEH HOUSSEIN Director of the Environment within MEDD
EA Project Manager	Abdallah SOLMA
EA Finance Manager	Houmad Yossif
EA Communications Lead, if relevant	n-a

2. OVERVIEW OF PROJECT STATUS

2.1 UNEP PoW and UN

	PoW 2022-2023
UNEP Current Subprogramme(s)	Subprogramme 1 Climate action
	Subprogramme 2 Nature action



PoW Indicator(s)	Subprogramme 1 Climate action Outcome 1A: Decision makers at all levels adopt decarbonization, dematerialization and resilience pathways. Outcome 1B: Countries and stakeholders have increased capacity, finance and access to technologies to deliver on the adaptation and mitigation goals of the Paris Agreement Indicators: (i) Number of national, subnational and private-sector actors that adopt climate change mitigation and/or adaptation and disaster risk reduction strategies and policies with UNEP support (ii) Amounts provided and mobilized in \$ per year in relation to the continued existing collective mobilization goal of the \$100 billion commitment through to 2025 with UNEP support (iv) Positive shift in public opinion, attitudes and actions in support of climate action as a result of UNEP action
	 Subprogramme 2 Nature action Outcome 2A: An economically and socially sustainable pathway for halting and reversing the loss of biodiversity and ecosystem integrity is established. Outcome 2 C: Nature conservation and restoration enhanced <u>Indicators</u>: (iv) Increase in territory of land- and seascapes that is under improved ecosystem conservation and restoration (v) Positive shift in public opinion, attitudes and actions in support of biodiversity and ecosystem approaches
UNEP previous Subprogramme(s)	PoW 2020-2021 Climate Change and Healthy Ecosystem sub-programmes
UNSDCF / UNDAF linkages	 Djibouti UNDAF 2018-2023 Strategic Objectives: 3. Access to basic services for the most vulnerable groups improved (% of the rural population with access to water) 4. Livelihoods of rural and peri-urban poor households improved to increase their resilience against climate risks, shocks and food insecurity (level of communities coping and adaptive strategy) 5. Living conditions of poorest population improved for a better management and protection of natural resources and ecosystems (poverty level)
Link to relevant SDG Goal(s)	 SDG 2. End hunger, achieve food security and improved nutrition and promote sustainable agriculture SDG 6 Ensure availability and sustainable management of water and sanitation for all SDG 11. Make cities and human settlements inclusive, safe, resilient and sustainable SDG 13. Take urgent action to combat climate change and its impacts* SDG 15. Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt
Link to relevant SDG Target(s)	 biodiversity loss - 2.3.2 Average income of small-scale food producers, by sex and indigenous status - 2.4.1 Proportion of agricultural area under productive and sustainable agriculture



- 6.1.1 Proportion of population using safely managed drinking water services
 11.5.1 Number of deaths, missing persons and persons affected by disaster per 100,000 people 11.5.2 Direct disaster economic loss in relation to global GDP, including disaster damage to critical infrastructure and disruption of basic services
 - 13.3.2 Number of countries that have communicated the strengthening of institutional, systemic and individual capacity-building to implement adaptation, mitigation and technology transfer, and development actions - 13.B.1 Number of least developed countries and small island developing States that are receiving specialized support, and amount of support, including finance, technology and capacity-building, for mechanisms for raising capacities for effective climate change-related planning and management, including focusing on women, youth and local and marginalized communities
15.3.1 Proportion of land that is degraded over total land area 15.a.1 Official development assistance and public expenditure on conservation and sustainable use of biodiversity and ecosystems

2.2. GEF Core Indicators:

GEF Core or sub indicators targeted by the project as defined at CEO Endorsement/Approval, as well as results.

Indiactora	Targ	ets – Expected Value	Motorialized to date		
Indicators	Mid-term	End-of-project Total target		Materialized to date	
Insert relevant indicator	N/A GEF-5 project	N/A GEF-5 project	N/A GEF-5 project	N/A GEF-5 project	

2.3. Implementation Status and Risk

[complete the fiscal year and select: 1st PIR; 2nd PIR; Final PIR; select HS; S; MS; MU; U; HU; unknown; not rated to rate the progress towards outcomes and outputs in third and fourth lines; select H; S; M; L; to rate risks for the fiscal year you are reporting in the fifth line. Add more columns if needed]

	FY 2016	FY 2017	FY 2018	FY 2019	FY 2020	FY 2021	FY 2022	FY 2023
PIR #	1 st	2 nd	3 rd	4 th	5 th	6 th	7 th	Final PIR
Rating towards outcome s (DO) (section 3.1)	MS	MU	MU	MU	MS	MS	MS	MS
Rating towards outputs (IP)	MS	MU	MS	MS	MU	MS	MU	MU



(section 3.2)								
Risk rating (section 4.2)	Unknow n	Substantia I	Mediu m	Mediu m	Substantia I	Mediu m	Substantia I	Substantia I

Summary of status. Please structure as follows, highlighting progress, challenges and main achievements, as needed:

Project reached technical completion activities were completed by 30 March 2023. A Result Verification Exercise (RVE) was undertaken in February 2023 and the subsequent Terminal Evaluation will take place in August 2023. The current PIR reflects results from the RVE with a specific focus on the progresses realised during this reporting period.

Rating towards outcomes: MS

Progresses towards achieving the project's objective of *"increasing resilience of the Djiboutian society and economy to the effects of climate change and enhancing the capacity of the government to integrate adaptation into development planning"* are **overall rated MS**. Several benefits have been noted by communities as a result of project activities even when output targets have only been partially achieved. As noted by the RVE there is an important disparity of impacts across regions. While project participants have witnessed positive changes in resilience and livelihoods in Hanle (acacia and agriculture) as well as in the city of Tadourah (dyke) and the site of Raysali (mangroves); in the rural communities of Tadjourah the results are more limited due to the absence of water in the project sites of Sourate and Darkenle and low access in Kalaf.

Outcome 1: The negative impacts of droughts and floods are reduced or averted

No occurrence of floods has been reported during this reporting period in project sites including in Tadjourah where the dike has been built. Since its completion in 2019, the dyke has prevented flooding in the neighbourhood of Marsaki protecting its 1500 inhabitants from severe loss and damages. A story has been published on UNEP website to highlight the results of this outcome (See here for details (in French)).

No significant changes have been recorded in the state of the water distribution systems since the last PIR. With 3 out of 5 of the water distribution systems fully functional, the project has made significant progress in addressing negative impact of droughts in Koudi-Koma, Lilya Bouri and Ad-Bouya. During this reporting period, small repairs for the water distribution systems were completed in Tadjourah and Dikhil. These repairs mainly targeted taps and pipes. The hydrologist consultant worked closely with the water committee to identity and address the unsustainable water management practices through training. It is expected that these trainings will foster good water management practices; however, impacts could not be measured at the time of reporting. The LDCF-4 project will continue to strengthen the capacity of the water management reasons, see output 1 for details) therefore putting a complete stop to planned agricultural activities in these areas.

The climate modelling and vulnerability assessment studies are completed and its results have been presented to policy makers via a workshop conducted in October 2022. This workshop was an important step toward the capacity strengthening of line ministries and other project stakeholders. These stakeholders were able to familiarise themselves with the climate vulnerability and impacts on various sectors (agriculture, water, etc.) and on the project implementation sites.

Outcome 2: Fragile ecosystems are productive and resilient to climate change

The community have reported key benefits from ecosystem restoration activities, especially in Koudi Koma (acacia) and Raysali (mangrove). These activities continued until the end of the project (March 2023).



While only 50% of the 10ha target could be completed in Koudi Koma, the community focused on strengthening existing areas to guarantee that social and ecological benefits are maintained beyond the life of the project. These benefits were already noted during the last PIR (i.e. wind breaker, natural barrier against sand build-up, food for their livestock and biodiversity hotspot). Further, as trees matured in Koudi Koma, Acacia Senegal trees started to produce gum arabic, a gum that could be harvested commercially from wild trees and can be commercialised for multiple use. The community has been introduced to the importance of this resource toward the end of the project, but no harvest has taken place. This activity has the potential to act as an incentive to the community to continue with the restoration activities and capitalise on the potential ecological and economic capabilities of the tree.

Regarding mangrove restoration, the Result Verification exercise (RVE) completed in February 2023 reported smaller restored areas than initially reported (1.1 ha of actual restored areas vs 4ha reported). With an approximate 70% tree survival rate, the community reported multiple benefits such as the successful return of fish and other marine invertebrates in the community as well as higher erosion control. They plan to also explore ecotourism opportunities. The RVE also reported that communities involved in the restoration activities are willing and excited to continue maintaining the area beyond the life of the project, despite being mainly pastoralists.

Outcome 3: Livelihoods that are sustainable, climate-resilient and contribute to maintaining ecosystem services

Impacts under the outcome have been mixed; with only 54 % of 30ha target for irrigated agro-pastoral plots achieved. These results occurred mostly in 3 out of 6 project sites, in Kouddi-Koma, Lilya Bouri and Adbouya.

Small repairs were completed by the hired hydrologist consultant during this reporting period; however, water access issues remained a problem throughout the life of the project. While substantial improvements need to be done to guarantee the sustainability of climate-resilient agricultural practices, new fruit trees (guava, lime and date palm) were planted in Kalaf and Lilya Bouri. These are low maintenance fruits (once well established) and farmers will be able to sell their harvest in Djibouti-ville. Coupled with the other crops grown in the perimeter (tomatoes, onions, watermelon, melon, eggplant), farming have the potential to bring additional income to families in the area of more than US\$1000 per year (both crops and fodder). Water remains a limiting factor in Darkenlé and Sourate, so no agriculture-based livelihood activities were implemented during the life of the project.

Aviculture was only recently introduced in the country as a cash-generating activity. The activity was implemented in Kalaf and Ad-Bouya. An end-of project stocktaking was conducted in December 2022/January 2023 to assess the status of project participant and conduct additional training on chicken health, feed and chicken scoop management. At the time of reporting, the participants of this activity mentioned that the overall improvement of their nutrition, with the provision of additional protein sources from (chicken meat and eggs). However, it is not known yet if the activity has brought additional incomes to the families. Because of the novelty of the activity, it is early to assess the sustainability beyond the life of the project. Famers have been given the tools, knowledge and material to ensure the continuation of the activity. Nonetheless, there is an important demand for local chicken in the country and this activity have the potential to bring substantial revenues to participants.

Similarly, handicraft making has also been promoted as alternative economic activity in Ad Bouya and Dinamali for women bringing additional revenue through the selling of hand made products (see previous PIR for more information).

Outcome 4: Increased capacity of institutions and communities to adapt to climate change

Overall, institutional awareness has improved among government officials at national and local levels and within communities and schools of the project sites.

The continuous capacity building activities implemented within the communities on agricultural practices have led to substantial innovations in market access for the agricultural production in Dikhil particularly. Several meetings with wholesalers and cooperatives were initiated to enable farmers to access agricultural markets and generate additional revenues. While outcomes are not available at the moment – this activity was only



formally initiated in January 2023 with the first sale occurring in March 2023 – it is expected that farmers in the area will continue to capitalise on the knowledge gained during the project and grow their revenues.

A hydrology consultant was hired to conduct a stocktaking of the state of all the project water infrastructure. While doing so, the consultant completed some small repairs and worked with the Water management committees to address unsustainable practices. significant repairs remain to be done, these needs were included in the exit strategy and presented to policy makers.

Three workshops took place in March 2023 in Djibouti-ville, Dikhil and Tadjourah to disseminate to policy makers the results from the climate modelling and vulnerability assessment completed in October 2022. The goal of these workshops was (i) to present the effect of climate change on the country; (ii) to present a stocktaking of the project at completion; (iii) to share with stakeholders the results of the study and (iii) discuss its implication in regard to the exit strategy and each stakeholder progamme of work. In total, 69 local and national policy makers participated in the workshops (24 in Tadjourah, 22 in Dikhil and 23 in Djibouti-ville).

Capacity building sessions for primary school students (6-11 years old) and teachers on climate change issues took place between December 2022 and March 2023 in all the project sites. About 40 students and their teachers participated in the activities that included a mix of in class discussion and hands-on activities in the project agricultural fields. Training was generally well received, however, due to the country's cultural barriers and the low girl schooling rate in the country, the majority of participants were men and boys.

Rating towards outputs: MU

The progress towards the delivery of project's outputs has been **rated MU** for this reporting period and overall project implementation. Some progress has been recorded during this reporting period but implementation has not been accelerated as needed to achieve the necessary targets by the end of the project's technical completion in March 2023. The Result Verification Exercise (RVE), conducted in February 2023 measured achievement of outputs and the overall project success. The description below includes these results.

Output 1.1 Protective measures against droughts and floods in cities and settlements.

The target has been achieved for this output: all water distribution systems have been completed in Tadjourah and in Hanlé but are not fully operational and the length and volume of gabion walls constructed was higher than the objective (target: 8200 m3, constructed: 10560 m3).

As per the RVE, only the water distribution systems of Lilya Bouri, Koudi-Koma and Ad bouya are considered fully operational. As mentioned in the other PIR, the harsh environmental conditions in Djibouti have created a lot of issues regarding the infrastructures. Limited water availability (Sourate and Darkenlé) and quality (Dinamali), high water salinity and wind (Lilya Bouri) and inadequate design (Kalaf) have created numerous problems throughout the life of the project.

Based on the observations of those issues from the communities, project team and international experts, A\an assessment was conducted by a hydrologist consultant during this reporting period on all the water distribution systems in all the project sites and provided costed recommendations regarding the necessary repairs. Some of these repairs were not possible due to the project's limited remaining time and budget, however, it was possible to replace all the defective pipes and taps. The rest of the recommendations have been discussed during the presentation of the exit strategy to the Project Steering Committee (December 2022) and the series of workshops to decision makers (March 2023) and will be included in the implementation plan of the LDCF-4, when possible.

Output 1.2. A hydrogeological model of current and projected water resources availability.

The target under this outcome has been achieved. The vulnerability assessment and the climate modelling study was completed and presented to government stakeholders in October 2022.

Output 2.1. Restored vegetative cover and soil stabilized in Acacia woodlands in Hanlé

The target of 15ha of restored vegetative cover could not be met. The RVE reported a total of about 5ha of reforested areas completed in Koudi Koma, out of the 10ha expected. In Lylia Bouri, the nursery as been repaired during this reporting period and seedlings are ready to be planted. However, water quality issues



as well as sandy and saline soils and the very high temperature and wind have made difficult to complete this activity. As the project is ending, relevant questions came up regarding the achievability of the proposed targets and the sustainability of these results.

Output 2.2. Restored mangroves in central coastal zones of Tadjourah.

Similarly, the target of 4ha of mangrove could not be met due to limited adequate plantation area and no additional activity took place during this reporting period. The RVE reported a total of about 1.1ha of restored mangroves.

Output 3.1. Productive oasis ecosystems that provide livelihoods and ecosystem services.

This output was partially achieved as only 3 out of the 6 project sites could fully use their agropastoral plots. The table below summarise the livelihood options that have been introduced by the project in the different communities:

Location	Alternative	Number of	0/	State of	Torget
Location	livelihoods		% women		Target achieved
Tadiacash	livelinoods	Participants	represented	the plots	achieved
Tadjourah					
Kalaf (200	Agriculture	60	41	Partially	No
households)	Poultry	15	100%	irrigated	
Sourate (50	Agriculture	16	50	No water	No
households)				available	
Ad Bouya (200	Agriculture	16	38	Fully	Yes
households)	Poultry	10	100%	irrigated	
	Handcraft	23 (with Raysali)	100%		
	Milk processing	20	50%		
	and				
	conservation				
	Veterinary	23	50%		
	training for				
	livestock				
Darkenle (60	Agriculture	No activities imple	mented		
households)					
Dikhil					
Koudi Koma (200	Agriculture	33	45	Fully	Yes
households)				irrigated	
Lilya bouri (250	Agriculture	42	38	Fully	Yes
households)				irrigated	
Dinamali (60	Handcraft	15 (Veterinary	100%	N/A	No (no
households)	Milk processing	training for	(handcraft)		agriculture
,	and	livestock)	. ,		activities
	conservation				were
	Veterinary	40 (handcraft)			implemented)
	training for	. , ,			. ,
	livestock				
Raysaly (30	Handcraft	23	100%	N/A	No No (no
households)		-			agriculture
					activities
					were
					implemented)
Total		336		1	
i otal	I	000	-	I	

Output 3.2. Increased, diversified and resilient livelihoods from the introduction of sustainable alternative economic development activities.

- See table in Output 3.1 for more details.
- The implementation of the aviculture activity was completed in 2021. The last follow up mission was completed in February 2023 to assess the sustainability of the activity and address some of the issues that were described in the last reporting period (high chick mortality, egg storage,



poultry reproduction, diseases and food). One of the recommendations is for the ministry to facility access to local markets and supermarkets in Djibouti Ville.

Similarly, a follow up mission was completed in December 2022/January 2023 for the craft making activity to also assess the sustainability of the activity. While no additional information is available regarding additional revenue, the community has reported the willingness to continue the activity beyond the life of the project.

Output 4.1. Increased institutional and technical capacity of local and national government.

The climate modelling study and vulnerability assessment was completed and presented to decision makers in October 2023 (output 1.2). A follow up set of workshops was organised in March 2023 with both local and national policy makers in Tadjourah, Dikhil and Djibouti-ville. These workshops were organised and facilitated by the ministry of environment. In total, 69 local and national policy makers participated in all three workshops.

Output 4.2. Increased institutional capacity at local levels for adaptation to climate change using an ecosystem-based approach.

4 sets of 4-day workshops were organised in each of the main project implementation sites (Ad-bouya, Kalaf, Sourate and Lilya-bouri). The workshops were intended for primary school students (6-11 years old) and their teachers on climate change adaptation issues. About 40 students participated in each location, in both in class and hands-on activities. Each workshop was composed of 5 modules:

- 1. Introduction to climate change (in class)
- 2. Climate change adaptation (hands-on)
- 3. Climate change mitigation (hands-on)
- 4. Climate financing (for teachers and school administrators)
- 5. Climate-resilient planning (for teachers and school administrators)

Overall risk rating: Substantial

Overall project risk for this reporting period remains substantial. While progresses are noted on the achievement of several outputs and outcomes, key baseline targets were not achieved at the end of the project. This is especially the case for restoration and agricultural activities. Most ecosystem-based activities are seasonal and require long term investments (of time and resources) to be completed. In this context, issues regarding environmental limitations (water availability, strong winds and sand) and institutional bottlenecks have been recurrent during the project implementation; as a result, it was not possible to achieve some targets. It will be important for the LDCF-4 - that will continue the agriculture and ecosystem restoration work initiated in the communities - to capitalize on the learnings and good practices emerging from this project as well as the recommendations coming from the RVE to create an effective implementation strategy that strengthens existing project results, minimise risks and maximise impact.

2.4. Co-financing

Planned Co-finance	With the information available to date US\$ 14,170,000 in co-financing have
Total:	been confirmed (taking in consideration the information provided during the last
US\$ 14,170,000	reporting period: US\$ 13,670,000 in 2022 and US\$ 500,000 during this
	reporting period), for a total US\$ 14,170,000.
Actual to date: US\$	
14,170,000 (100%)	
Progress	Justify progress in terms of materialization of expected co-finance. State any
Trogrees	
	relevant challenges.
	(Maximum one paragraph)
	All co-financing initiatives have been completed and all co-financing
	delivered.
	During the current reporting period:



The project Integrated Water Resources Management in Djibouti was launched in 2020 (PGIRE), financed by IFAD for US\$ 4,198,000 aims to improve the sustainable access of rural households to water and rangeland resources, their resilience to climate change, their food and nutritional security and their income, in particular for women and young people. Particularly, the project focuses on the sustainable valorisation of existing hydro, its investments in function of their contribution to territorial development and local planning in sustainable pastoralism (wells), in small-scale irrigation schemes, in horticultural gardens for schools, in small-scale agri-transformation, etc. all illustrating the inbuild synergies between project components. This project is implemented in Dikhil and Tadjourah,and will build on the farming activities and training that were initiated under LDCF-2.
During the previous reporting period:
The UNEP-IUCN-WAMIP project on "Enhancing the awareness and knowledge of pastoralism" has provided US\$ 270 000 of co-financing by: i) increasing knowledge on pastoralism as a terrestrial ecosystems land management option; ii) contributing to long-term and adaptive management of landscapes that are vulnerable to climate change; and iii) raising the political attention around pastoralism as a valued land management option.
The Project on Water Supply and Sanitation (PWSSRA - US\$ 10.1 million for the period 2013–2017 – planned, the project is still ongoing as of May 2022) has provided US\$ 3,500,000 in co-financing. it has been implemented in: i) the rural areas of Tadjoura, Arta and Ali Sabieh districts and ii) the district centres of Tadjourah and Ali Sabieh. The project's objective was to sustainably improve the living conditions of the rural populations in Djibouti.
The UNEP preparatory project for Using Ecosystem-based Adaptation (EbA) for Food Security in agriculture-dominated landscapes in Africa (EbAFoSA) has be implemented between 2014 and 2018 and has contributed to 600,000 usd of co-finance to the project. The project was implemented in Malawi, Mozambique and Zambia but results informed, and were replicated across Africa through the collection and diffusion of lessons learned from demonstration EbA projects.
The UNEP-European Commission ENTRP projet: "Building Capacity for Coastal Ecosystem-based Adaptation in Small Island Developing States (SIDS)" implemented between 2014 and 2017 provided in kind co-finance for 500,000 usd through the development and dissemination of global tools and knowledge products on adaptation.
The baseline project PROMES-GDT has closed in 2014 providing US\$ 3,000,000 of co-finance. The PROMES-GDT contributed to achieving the LDCF project objective through its focus on water access (surface rainwater harvesting, construction of key infrastructure such as water reservoirs and basins), sustainable land management, improvement of animal production, and the protection and safeguarding of threatened forest areas. It focused on different regions in Djibouti among which Dikhil.
The baseline Rural Community Development and Water Mobilization Project PRODERMO supported by the world bank has closed in December 2019 and provided during its implementation period a total of 5 800 000 usd of co-finance. PRODERMO focused on Tadjourah and Dikhil regions providing similar therefore complementary support than the LDCF-2 project on water resource management, agricultural and livestock development.



2.5. Stakeholder engagement

Date of project steering committee meeting	8 December 2022
Stakeholder engagement	 Describe progress, challenges and outcomes on stakeholder engagement (based on the description of the Stakeholder engagement plan included at CEO endorsement). For older projects that did not have a Stakeholder Engagement Plan in the CEO Endorsement Document, simply mention any kind of stakeholder engagement activities undertaken during the reporting period. During this reporting period several activities have implemented to improve stakeholder engagement and participation throughout the project, at both national and local levels: Training on farming techniques: these activities were the focus of this reporting period, to ensure that farmers are equipped with the best tools and knowledge to continue the activity beyond the life of the project and further diversify their pastoralist livelihoods. Through hands-on agricultural training, project participants were encouraged to implement the techniques demonstrated during the training. About 50% of training participants were women. Farmers saw the benefits (in term of food and added income) and the added value of agricultural practices to their pastoralist activities. School workshop: between December 2022 and March 2023, both elementary school students and their teachers were educated on the effects of climate change, as well as they ways to mitigate and adapt to its impacts. Using both hands on and in-class activities, the 4-day workshops were conducted in each workshop. Workshops for policy maker: About 69 local and national policy makers to exchange on the climate change modelling and vulnerability assessment report and reflect on the relevance of this report for their sector. Discussion also revolved around how the recommendations from this report, as well as the project exit strategy can be implemented to guaranty better impact on mitigation and adapt to its impact. Using both how of the on the relevance of this report for their sector. Discussion also revolved aro



The project LDCF-4 with capitalise on the relationship built with existing stakeholders and continue to raise awareness on climate change impacts. One for the most important challenge will be to focus on benefits for women and girls and promote the sustainability, relevance and upscaling of the good practices.
[section will be uploaded into the GEF Portal]

2.6. Gender

2.6. Gender	
Does the project have a gender action plan?	Yes, No (delete as appropriate)
Gender mainstreaming	 Describe progress, challenges and outcomes related to the gender-responsive measures documented at CEO Endorsement/ Approval in the gender action plan or equivalent. Older projects that were designed before gender mainstreaming should proactively report any possible gender benefits, as appropriate. The terminal RVE has noted several issues with regards to gender mainstreaming and the overall project results in regard to gender. As reported in the previous reporting periods, significant effort has been made to support women empowerment throughout the project, despite some cultural challenges. Toward the end of the project, the focus was put on strengthening agricultural outputs. With the new agronomist in place since September 2022, continuous, hand-on training was delivered to the communities, with a particular attention to the active participation of women farmers. About 50% of all participants were women; training included crop cultivation and commercialisation, pest management and fruit tree planting. Two follow up missions were conducted regarding the handicraft and aviculture activities (in December/January 2023 and in March 2023 respectively). Both activities were specifically designed to target women to strengthen their skills and enable them to create income-generating activities. While no information is currently available regarding the overall income generated or its use, consultations with project women participants indicated that they would be continuing the work initiated. Particularly, women involved in aviculture saw some immediate nutritional benefits with the availability of meat and egg. Finally, the vulnerability index (VRA) calculated by the RVE showed that despite not meeting the project sand the proximity of water sources (they do not have to walk several kilometres everyday to fetch water) have greatly contributed to reduce their vulnerability. The project LDCF-4 will capitalise on this achievement for its implementation.

2.7. Environmental and social safeguards management

Moderate/High risk	Was the project classified as moderate/high risk CEO
projects (in terms of	Endorsement/Approval Stage?
Environmental and	No
social safeguards)	
	If yes, what specific safeguard risks were identified in the SRIF/ESERN?
	If yes, describe the specific safeguard risks that were identified in the
	SRIF/ESERN.



grievances related to social and/or environmental impacts (to be filled in by TM and EA) impacts (actual or potential) during the No.	oject's ESS (within the initial Project s or successes faced during project's
	s or successes faced during project's
 social safeguards management Document) as well as the challenges implementation are included below. recommendations received from the mission conducted in December/Jan completed in February 2023. 1. The targeted ecosystems for projet the coast of Tadjourah – are fragilea their restoration difficult. Limited wat has hindered the implementation. As mangrove restoration were not met. in both restored areas are strong, he 2. In its design and implementation, has ensured that no rights or laws ha activities, in accordance with UN gui 3. Traditional and state-based land t defined at project onset and have no implementation. Local leaders are in implementation. Local leaders are in implementation. Cocal leaders are in implementation. Diraciples communicated to relevant decision or these principles and elaborate a mor address any future issues. 4. All communities have been inform concern them; the work of the project trust and ensuring increased particip exit strategy has been completed an national project stakeholders. The re report will be taken in consideration. project. 5. The project have strengthened na climate change adaptation. Two awa one in October 2022 for the initial pr modelling and vulnerability assessm internalisation of this study (coupled strategy) in line ministries strategies 6. All required labour to implement ti the law; no forced or child labour has workers review and sign their work of guidelines; likewise, health and safe and safety regulations followed durir 7. Financial transparency has been financial project assistant by UN fina 	water vulnerability expert following the nuary 2023 as well as from the RVE ect interventions – the plains of Hanlé and and climatic/environmental conditions for er availability and other institutional issues is a result, targets regarding acacia and However, it is important to note that plants eathy and well established. the project has respected human rights and ave been infringed upon by project delines. enure arrangements have been clearly by been infringed upon by its wolved in all decisions pertaining to the Some conflicts have arisen in Kalaf members regarding water access in the g period) and second during the RVE in er the latter has emerged as the result of es guiding conflict resolution has been makers. The project LDCF-4 will build on re comprehensive grievance mechanism to and disseminated to all relevant local and ecommendations formulated within the during the implementation of the LDCF-4 ational institutions' capacity to implement areness raising workshop were conducted; esentation of the results of climate ent and the other in March 2023 for the with recommendations from the exit he project activities is provided according to s been used. All service providers or contract in accordance with the national ty of the workers is guaranteed, and health



 8. EIAs are required before constructing large infrastructure by the national laws. In the project, an EIA was required to guide the construction of the Marsaki dyke. However, the EIA was conducted late (when construction work had already started on the dike); moreover, the EIA did not take into account the potential impacts of climate change on the dyke, which makes this infrastructure potentially vulnerable to future floods that could become stronger and higher because of climate change. The dike was damaged by strong floods in October 2019 and was repaired, strengthened and levelled. 9. Poor water management was observed in Lilya Bouri, Koudi Koma and Kalaf agro-pastoral plots in part explaining the low participation of beneficiaries in agriculture activities. Repairs and levelling of the pipes and taps were conducted, and additional training on how to use the tap were implemented to address this challenge. Special attention to this issue is paid by the project team on other project sites. The RVE recommended that the larger repairs to be completed as soon as possible. These recommendations were also part of the project's exit strategy and have been presented to rlevant national stakeholers. 10. The water expert provided a number of recommendations regarding water quality, as it is an issue highlighted by the project's ESMP. An aquifer
team on other project sites. The RVE recommended that the larger repairs to be completed as soon as possible. These recommendations were also part of the project's exit strategy and have been presented to rlevant national stakeholers. 10. The water expert provided a number of recommendations regarding water
(pumping) test was conducted in December 2022 to determine water flow as well as basic water quality characteristics (pH, temperature and electric conductivity). However, further testing is needed to fully assess water quality in the project sites.

2.8. Knowledge management

Knowledge activities and products	 Provide a narrative of knowledge activities/ products (when applicable), as outlined in knowledge management approved at CEO Endorsement/ Approval. Please attach a copy of any products. To ensure the sustainability of the project results, the exit strategy has been drafted, presented to the Project Steering Committee (PSC) and approved. A <u>Climate modelling and vulnerability report</u> has been completed and presented to policy makers during a capacity building workshop in October 2022. The report builds on consultation conducted with policy makers and community stakeholders in 2021 and 2022. The report, alongside the <u>exit strategy</u>, was presented during a set of workshops in Tadjourah, Dikhil and Djibouti ville in March 2023. The report is available here. While the project webpage (http://www.environnement.dj/) has been finalised in the previous reporting periods, the website cannot be used as the document repository at the moment. Constant communication is done with the ministry to ensure that this problem however, no changes occurred in this reporting period. Finally, Fact Sheets on Lessons Learned based on project activities were produced during the previous reporting period. These documents were reviewed and updated during this reporting period and will be finalised in time for the project evaluation, during Q3 2023. Current factsheets cover the following topics: community engagement and participation in project activities; and project sustainability; and will be available on the website once finalised.
Main learning during	[section will be uploaded into the GEF Portal]
the period	



2.9. Stories to be share	d
Stories to be shared	Optional for mature projects: Provide a brief summary of any especially interesting and impactful project results that are worth sharing with a larger audience, and/or investing communications time in, if any. A case study was conducted by UNEP in April 2023 to showcase the successes, good practices and lessons learned emerging from the mangrove restoration activities. the result for this study will be available shortly.
	[section to be shared with communication division/ GEF communication]



3. PROJECT PERFORMANCE AND RISK

Based on inputs by the Project Manager, the UNEP Task Manager¹ will make an overall assessment and provide ratings of:

- (i) Progress towards achieving the project Results(s)- see section 3.1
- (ii) Implementation progress see section 3.2

Section 3.3 on Risk should be first completed by the Project Manager. The UNEP Task Manager will subsequently enter his/her own ratings in the appropriate column.

3.1 Rating of progress towards achieving the project outcomes (Development Objectives)

[copy and paste the CEO Endorsement (or latest formal Revision) approved Results Framework, adding/deleting outcome rows, as appropriate]

Project objective and Outcomes	Indicator	Baseline level	Mid- term target	End-of- project target	Progress as of current period	Summary by the EA of attainment of the indicator & target as of 30 June 2023	
Objective: To increase the resilience of the Djiboutian society and economy to the effects of climate change and enhance the capacity of the governmen t to integrate adaptation into its developme nt planning".	1. Number of climate change adaptation training events, and number of staffs trained (disaggregat ed by gender) in integrating climate change adaptation into development	1. At least one training in adaptation to climate change has been undertaken at the national level.		1. By the end of the project: - At least two training workshops on risk assessmen ts with participatio n of all concerned entities.	100%	 Current reporting period: Following the completion of the climate modelling and vulnerability assessment, two sets of workshops took place with policy makers in October 2022 and March 2023. The first workshop was attended by about 25 participants and included a presentation of the study results and a discussion about the sectoral relevance to line ministries. The second set of workshops took place in Tadjourah, Dikhil and Djibouti-ville) over 3 days in March 2023. (i) to present the effect of climate change on the country; (ii) to present a stocktaking of the project at completion; (iii) to share with stakeholders the results of the study and (iv) discuss its implication in regard to the exit strategy and each stakeholder progamme of work. In total, 69 local and national policy makers participated in the workshop. The report is available here. Overall progress against targets: The target has been achieved. Challenges and lessons learned: Despite consultants highlighting the need for cooperation and synergies among the different institutional actors, these recommendations will be difficult to operationalise as most of the lines ministries and other institutional actors work in silo. These considerations have been included in the project's exit strategy. 	S

¹ For joint projects and where applicable ratings should also be discussed with the Task Manager of co-implementing agency.

² Use GEF Secretariat required six-point scale system: Highly Satisfactory (HS), Satisfactory (S), Marginally Satisfactory (MS), Marginally Unsatisfactory (MU), Unsatisfactory (U), and Highly Unsatisfactory (HU).



2. Number of individuals trained, (disaggregat ed by gender) in climate- resilient livelihoods.	30 individuals	2. At least 200 individuals.	X329 individuals trained (183 women, 146 men)	project. A new agricul the recorded delays and address the cap project continued its schedules of the pas addition, two follow u 2023 for the craft ma activity to address iss Training was delivered address some of the high chick mortality, of Overall progress to The target has been least a first training in activities; out of whic	ed through this re ulture consultant in the implement acity gaps that w learning-by-doin toralists and ens up missions were king activity and sues and assess ed during the mis issues that were egg storage, pour ward targets achieved. To da a climate-resilien th 183 women (5	eporting period and un was hired in Q3 2022 ation of activities relative g approach to accom- ure the sustainability completed in Decem in February 2023 for the sustainability of t ssion for the poultry fa a raised during the las altry reproduction, dise te a total of 329 peoplet t agriculture or alterna 6%). The figure is slig measurement may be	to address some of ted to this outcome ervious PIRs. The modate the of learnings. In ber 2022/January the poultry farming hese activities. Irming activity to t reporting period: eases and food. le have received at ative economic ghtly different from	HS
				Training conducted Poultry farming	Location Kalaf Ad Bouya	Date November 2020 and	Number of participants 15 women 10 (3 women)	
				Craft making	Dinamali Ad Bouya - Raysali	June 2021 February and May 2021	40 women 20 women	
				Milk processing and conservation	Dinamali	February 2021	18 women	
				Sustainable water management	Ad Bouya Kalaf	February 2021 July 2021	15 (6 women) 60 (21 women)	
				Agriculture	Lilya Bouri	Started early 2018, regularly since July 2021	42 (16 women)	
					Koudi Koma	Started mid-2019, regularly since July 2021	33 (14 women)	
					Kalaf	Started end 2020, regularly since July 2021	60 (24 women)	



						A	vd Bouya		ed end 2020 arly since 2021), 16 ((6 women)	
						ability remai		ajor challeng especially ag		t the pro	ject impacting	
3. The percentage change in vulnerability to climate- related hazards of people disaggregate d by gender living in the project areas.	3. i) Hanlé: High vulnerability for men and women (Score: 23) ii) Tadjourah: High vulnerability of men (Score: 24) and extreme vulnerability	3. Mid- way through the project, a 20% increas e in the VRA scores.	3. By the end of the project, a 45% increase in the VRA scores.	X24.17% increase in the VRA scores.	insights reg RVE, the av result, the t average % regardless Tadjourah (Hanlé and reduction w for men and women, but	arding the V verage incre arget was no of change ir of gender, is high vulnera 11% in Tadje ith 47% low d women: (a t the different Inerability re	(RA score ase VRA of achieve the table ability), br ourah. Lil er than in Il areas c nce is not	ed. This num below. The edium vulner inging a reduy a Bouri has the baseline ombined: VF significant. per village in	and Tadjoura e end of the bber was cal e average in rability) for H uction in the s recorded th e study. The RA of 18 for	ah. Acco project is culated idex for t lanlé and vulnera men highes vulnera men and men and	rding to the s 24.17%. As a using the the districts, d 21.5 for bility by 37% ir st vulnerability bility is similar d 17.5 for	n
	for women (Score: 26)					-	Tadjourał	١		Hanlé		
	iii) Marsaki: High vulnerability					Adbouya	Kalaf	Darkenlè	Kouddi- Koma	Lilya Bouri	Dinamali	
	for men and women				Ancient	24	23	23	20	25	24	
	(Score: 25)				New	18	21,5	22,5	13,5	13,3	16,5	
					% change	0,25	0,07	0,02	0,33	0,47	0,31	
					Average VF	RA per gend	er in eacl	n project are	a (as per th	e RVE)		
					Men		Hanlé 16		Tadjou 20			
											1	



					 It is important to note that only 54% of the baseline sample were represented, hence the results should be more nuanced. The time available to conduct the RVE was limited, hence it was not possible to fully capture individual differences. Rather, village level comparisons were used. While the targets were not achieved, there has been a substantial improvement in the community vulnerability, especially for women, following the implementation of the project. Learnings and good practices emerging from the project will be caried over to the project LDCF-4 to ensure continuity in the results. 	
Outcome 1: The negative impacts of droughts and floods are reduced or averted	1. Length and volume of gabion walls built.	1. 15 m (15 m3).	At least 1.7 km (8,200 m3)	1.6km (10,560 m3)	 Current reporting period: The dyke was completed during the previous reporting periods and only basic maintenance and monitoring were completed until the end of the project. No damages nor major flooding events have taken place in this reporting period. As per the exit strategy, it is expected that any maintenance will be done by regional authorities, as needed. Overall progress against targets: About 10,560 m³ of gabion were used. The target has been reached and the activity has been completed. 	S
	2. Average volume of water available per day for irrigation of agropastoral plots.	2. 173 m3/d	2. 1,209 m3/d total.	2,664 m3/d total	Overall progress against targets: As reported in the previous reporting period, the volume of water available per day for irrigation was estimated at: Koudi Koma 1,440 m ³ /d, Kalaf: 960 m ³ /d, Ad Bouya: 168 m ³ /d, Lylia Bouri: 960 m ³ /d. The RVE also reported no water available for Darkenle: 0 m ³ /d and Sourat: 0 m ³ /d. In Dinamali the borehole constructed by the project did not produce any water. In total , the project has reached a water distribution capacity of 2,664 m3/d which is higher than the set target, however when looking at the average per site the number goes down to 588 m ³ /day due to very important sites disparities. Overall, despite a high total volume of water resulting from the high water flow of the Koudi Koma and Lilya Bouri sites, important issues with water availability have been noted in all the other sites. Current reporting period: An hydrologist was hired to assess the level of damages and complete some basic repairs, within the project limited remaining budget. Particularly, the Hanlé borehole in Koudi-Koma had two successive pump breakages that were repaired. The project provided the necessary equipment from stock and the borehole was repaired.	MS



	3. Number of fully operational water distribution systems in agropastoral plots (including operational boreholes, distribution systems and reservoirs)	3. 20	3. 5 fully operational water distribution systems in Koudi koma, Lylia bouri, Sourat, Kalaf and Ad bouya	3	 Overall progress against targets: While the 5 water distributions systems were built and completed, only 3 are fully functional. Some structural challenges emerged (Kalaf and Darkenlé), and water availability issues were recurrent throughout the project (Sourate). The other water systems - Koudi Koma, Lilya Bouri and Ad Bouya are fully functional. Current reporting period Some small repairs and maintenance (taps and pipes) were completed during this reporting period. Challenges and lessons learned: Water access has been a challenge throughout the life of the project and has greatly impacted the possibility to develop and maintain agricultural activities and other alternative cash-generating activities. This problem has been particularly important in Dinamali, Sourate and Darkenle where no agricultural activities could be carried out due to lack of water despite the construction of distribution systems 	MU
Outcome 2: Fragile ecosystems are productive and resilient to climate change	1. Area of restored Acacia woodland in Hanle .	1. 0 ha	1. At least 15 ha in Hanlé	4.5	 Overall progress against targets: The target could not be reached: the RVE recorded about 4.5 ha of acacia planted in Koudi Koma. Despite the limited success of this activity, the community reported clear biodiversity and livelihood benefits linked to the restoration. Planting activities could not be caried out in Lilya Bouri due to various environmental factors (high and hot winds and sands). Similarly, problems with water quality in this location (high temperature and high mineral content) was noted in previous reporting periods, further hampering efforts to initiate restoration efforts. Current reporting period The focus in Lilya Bouri for this current reporting period was to strengthen and maintain the nursery to ensure that activities continue after the end of the project. 	MU
	2. Area of restored mangroves in central coastal zones of Tadjourah.	2. 0 ha	2. At least 4 ha.	1.1	 Overall progress against targets: As reported by the RVE, the target could not be met: while about 4.2 ha of mangrove has been planted 1.1 ha of the area has survived. There are several reasons for this low achievement: The location of the restoration site is not ideal: the high winds in the areas have been detrimental to the nursery structure and to the young plants. Land availability for restoration: the 4ha target was quite ambitious considering that only about a third (1.5 ha) of the Raysali area is suitable to grow mangroves. They need muddy soil and brackish 	MS



				on - Er re dif du de the pro- All these fa this activity sustainabili Success: Despite the propagules actionable is knowledge country. Th This success successful that the bio	ly occasionally acroachment b porting period, ficult for the youring the last re- stroyed by car e site; howeve esent on the si- ctors affected . Further these ty of this activity se issues, the . A mangrove regarding the e report restat as story has all mangroves residiversity in the	 / flooded. y camels a camel gra camel gra pung plants aporting pemels. The str, the personates ite. the ability factors had ty. plants are report was cons aiming long-term red the ben so been us storations. 	on is a pastora or the project to ve substantial i healthy and ha developed in 2 at increasing lo nangrove resto efits of maintair ed as a case si	entioned in t at in the area e repairs wer at of the fem- aid by the pr list and there o achieve its mplications ve stated to 020 that pro- bcal capaciti ration endea hing mangro tudy by UNE E, the commu- ence of shell	he previous , making it e undertaken ce was oject to protect fore not always target under for the produce vided 12 es and vours of the ves in the area. P regarding unity also noted fish and fish)	
3.Level of local communities' awareness and ability to protect	3. 80% of villagers on average are willing to protect or restore the	3. At least 80% in each project location are willing to	100%	No changes	hat 100% of th	eported dur	<i>ts:</i> ing this reportir of people interv nd restoration o	riewed is will	ng to take	S
restored ecosystems	tree cover in the future.	take future action in terms of protection		Location	Number of participants for the project	Number of active families	% of active families participating in trainings	Target achieved		
		and restoration of the tree		Raysaly	30	30	100%	Yes		
		cover		Koudi Koma	33	33	100%	Yes		
				Lilya bouri	42	35	83%	Yes		



					from the re Koma also start the re additional r implementa that restore needed ad	stored areas served as a storation act esources wi ation of the L ed areas will ditional reve	the communi s. Windbreaks n example in ivities once th Il be provided .DCF-4 project bring eco-tou nues to familie tinue the resto	and sand Lilya Bour e environi to these c t. In Rays rism oppo es and fur	protection l i to maintair ment is mor communities aly, the com rtunities, bri ther acting a	benefits in l the nurse e suitable. during the munity is e inging some as an incen	Koudi ry and fully Some e expecting e much	
Outcome 3: Livelihoods that are sustainable,	1. Number of households with an irrigated	1. In Koudi Koma, date palm trees are grown	1. a) 33 in Koudi Koma, 42 in Liliya	1) 33 in Koudi Koma, 42 in Liliya Bouri, 0 in	As previou	sly reported	ard the target targets were r by the RVE.	met in 3 o				MS
climate- resilient and contribute to maintaining ecosystem services	agropastoral plot, disaggregate d by gender	but are not growing well as fuel is too expensive for the land to be	Bouri, 15 in Sourat, 60 in Kalaf, 8 in Darkenlé, 16 in	Sourat, 60 in Kalaf, 0 in Darkenlé, 16 in Adbouya for a total of 151	Locatio n	Number of househol d with an irrigated plot	% Women represente d	Numb er of active familie s	Number of ha cultivate d	State of the plots	Targets achieve d	
		sufficiently irrigated.	Adbouya.	households		adjourah						
		ingated.	b) Half the households benefitting	2) 60% of households benefitting	Kalaf	60	41	17	0.97	Partially irrigate d	No	
			from an agropastor al plot engaged	from an agropastoral plot engaged into farming	Sourate	-	-	1	0.4	No water availabl e	No	
			into farming or developed	at the end of the project. (this number	Ad Bouya	16	38	16	1	Fully irrigate d	Yes	
			their farming activities in	goes down to 30% 3 years before	Darkenl e	-	-	-	0	Not irrigate d	No	
			the last 3	the end of		Dikhil						
			years at the end of the project.	the project)	Koudi Koma	33	45	32	9.13	Fully irrigate d	Yes	
					Lilya bouri	42	38	42	4.77	Fully irrigate d	Yes	



				Challenges: The agriculture trainings started quite late in most sites (except Koudi Koma). This is due to some delays witnessed in establishing the water distribution systems. In addition, as noted for previous outcomes, water availability is one of the main issues of the project, particularly in Sourate and Darkhenlé This has led to some plots being abandoned. Some small-scale repairs (tapes and pipes) were completed during this reporting period (see output 1.1); however, they were not sufficient to alleviate the issue. At the end of the project, the plots occupancy in some sites was low with only up to 17 farmers out of the 60 planned that are using the plots in Kalaf.	
2. Area of irrigated agropastoral plots	2. 3 ha	2. By the end of the project, at least 30 ha of irrigated agropastor al plots.	15.27 ha (51% of the targeted area <i>)</i>	Overall progress toward the target: As mentioned in the Outcome 3, indicator 1, only 3 out of the 6 sites successfully reached their targets for a total of 15.27ha and a 51% target completion rate. See indicator 1 for more details.	MU
3. Number of beneficial species cultivated per agropastoral plot.	3. 0 to 7	3. An average of 8 different species grown on the agropastor al plots (six tree species, 2 fodder species and 3 crops species).	Between 12- 20 species on average grown on the plots	Overall progress toward the target Below are the achievements at the end-of-project : Villages Target achieved Tadjourah Sourate No (due to issue of water availability) 1 species: Date Palm Kalaf Yes 7 species of crops: tomatoes, piment, onions, eggplant, okra, watermelon, and melon mainly. 2 species of fodder: Panicum and Soudan grass 4 species of crops: tomatoes, piment, onions, eggplant, okra, watermelon, sorghum and melon mainly. Other small crops can be found on the site. 2 species of fodder: Panicum and Soudan grass 6 species of trees: Date Palm and Dum Palm, Guava, mango, citrus, pomegranate Ad bouya Yes 8 species of crops: tomatoes, piment, onions, eggplant, okra, watermelon, sorghum and melon mainly. Other small crops can be found on the site. 2 species of fodder: Panicum and Soudan grass 6 species of acacia Darkenle No Dikhil Lylia bouri Yes 7 species of crops: tomatoes, piment, onions, pepper, sorghum, eggplant, okra and watermelon. 3 species of fodder: Panicum, Leucaena and Soudan grass 7 species of fodder: Panicum, Leucaena and Soudan grass 7 species of trees: Date Palm and Acacia and Moringa, guava, pomegranate, l	HS



4. Average amount of fodder and crops produced per year	4. Around 4 t of crops and 3.5 t of fodder (to be taken with caution as no accurate accounting is available).	4. At least 8 t by ha by year for crops and at least 30 t by ha by 1 year for fodder in irrigated areas	4.3 t/year for fodder (as per MHUE estimates) Fragmentar y data for crops not calculable for all species and villages	Following the recommendations of the agriculture expert, project participants have focussed on fodder production for livestock consumption and for selling. For instance, one farmer produced about 1440 kg of fodder during the 2022-2023 period, bringing an additional revenue of about US\$ 1000/year. In Ad bouya, farmers reported to gain about 30 000 Djf/month (US\$168) from farming (fodder and crop) for the whole villag; in Kalaf farmers produced about 59 KG of fodder/month and 100 Kg of tomatoes/month (as reported by the RVE). Overall progress toward the targets: The target has not been reached for this indicator however data is limited as farmers do not necessarily track their production. While there close support was provided to the farmers by the on-site agricultural technician and the agronomist consultant, farmers are ultimately the ones who report their harvest and how much they gain from it. However, farmers work mostly informally and had no access to scales so exact measures in kg are not available. This is a lessons learned. It is estimated by MHUE that about 4.3t/year of fodder have been cultivated in total, on all project sites combined (as reported by the RVE).	MU
				Training provided by the agriculture expert enabled farmers to substantially increase their fodder production. However, with limited water availability, limited opportunities to sell production and a pest infestation recorded in Koudi Koma have made it impossible to reach the targets. Further, it is also important to discuss whether this target is achievable in the first place. In similar project implemented in <u>Bangladesh</u> for instance, fodder production was expected to be around 500kg/ha/year, in conditions that are exponentially more favourable than in Djibouti. An intensive cultivation system is expected to achieve this level of production, which is not consistent with the ecosystem-based approaches promoted by the project.	
5. Percentage of households with increased access to	5. The rate of beneficiary households is estimated at 30 percentage	5. By the end of the project, at least 280 agropastor al families will have	336 people	Overall progress toward the target: The target has been reached. In total, about 336 people participated in the alternative livelihood trainings that took place over the course of the project: It is however too soon to assess if this will translate in more secured livelihoods. Longer term data will be needed to assess the impact of the project on	S



alternati livelihoo assets, disaggre	d for women and 25pp for	more secured livelihoods.	livelihoods. This could the project LDCF-4	d be done as part of	the monitoring and	evaluation work of
d by ger			Location	Alternative livelihoods	Number of Participants	% women represented
	of 2 (poor access to		Tadjourah			
	livelihood assets)		Kalaf (200 households)	Agriculture Poultry	60 15	41 100%
	assets)		Sourate (50 households)	Agriculture	16	50
			Ad Bouya (200 households)	Agriculture Poultry Handcraft Milk processing and conservation Veterinary	16 10 23 (with Raysali) 20 23	38 100% 100% 50% 50%
			Darkenle (60	training for livestock Agriculture	No activity	N/A
			households) Hanlé		implemented	
			Koudi Koma (200 households)	Agriculture	33	45
			Lilya bouri (250 households)	Agriculture	42	38
			Dinamali (60 households)	Handcraft Milk processing and conservation Veterinary training for livestock	15 (Veterinary training for livestock)40 (handcraft)	100% (handcraft)
			Raysaly (30 households)	Handcraft	23	100%
			Total		336	



Outcome 4: Increased capacity of institutions and communitie s to adapt to climate change	1. Number of agropastoral plot committees and cooperative that are up and running	1. One Agropastora I plot committee and cooperative are active in 4 villages (Koudi Koma, Liliya Bouri, Adbouya, Kalaf).	1. By the end of th project, i) one agropas al committe operates per proje site, with the participa n of at le half the beneficia s of agropas al plots. ii) At lea half the villages participa to a coopera and the share of farmers participa to the share of farmers participa s is at le 15%.	e of the 7 sites) ii) yes (for existing cooperative s) ect tio ast arie cor st tin e ive	 Current reporting period: A training was conducted by the hydrologist consultant with the committees and the guardians present on site. Discussion revolved around repairs needed as well as mitigation techniques regarding the unsustainable water management practices identified in the last reporting period, notably regarding the effective communal management of water usages between human consumption and herd usage. Overall progress toward the target: The target has been partially met. As reported in the last reporting period, each project site now has an agropastoral committee/cooperative made of community members. The cooperatives are loosely organised. As reported by the RVE, these cooperatives mostly provide informal technical assistance to each other, without any real governance or entrepreneurial vision. However, most of the community members participate is the cooperatives' activities, especially in Ad bouya, Kalaf, Koudi koma and Lilya bouri. The committees remain to be formally organized and trained to be fully operational and sustainable Challenges : The exit strategy has highlighted out the need for a strong institutional support (governance, financial and material) for these committees and foster sustainable management of water resources. The strategy has been presented to project stakeholder for its internalisation. Sustainability remains an important issue for those cooperatives that exist but are not yet fully functional. The role of the LDCF-4 will be important to strengthen those and ensure that they play their role successfully 	MU
	2. Number of climate change training events for school teachers	2. One teacher declared having information on climate change during his studies.	2. By the end of th project, least on training school teacher.	e at e	Overall progress toward target: All trainings have been conducted, both in Hanlé and Tadjourah. About 40 people participated in each project site (a couple of classes and their teachers) and included both in-class discussions with the students and their teachers and practical, hands-on activities on the agricultural plots. Most participants were boys due to cultural factors that prevent girls from attending schools in these areas. The training took place between December 2022 and March 2023. The target has been met during this reporting period.	S
	3. Number of projects	3. 0	3. DEDE website		Overall progress toward the target	MS



sharing information through the LDCF project website.		updated and include a project page for this project, on which all relevant documents, progress reports and lessons learned are shared	This output was completed in the previous reporting periods. The website http://www.environnement.dj/ is active; however, project documents could not be uploaded and shared via the website. This issue has been included in the exit strategy and presented to the Ministry. An IT specialist will be recruited before the end of the project to strengthen the website and its sustainability	
4. Number of research projects to assess the mid and long-term costs and benefits of LDCF project intervention	0	By the end of the project, at least 2 research projects are funded by the LDCF project.	Overall progress toward the target Target achieved in the previous reporting periods. The project supported the completion of two master's theses at the University of Djibouti. One of the students who completed their thesis is employed by the project as a consultant for capacity building of schoolteachers, sharing the knowledge that they acquired during their studies to the community. Both theses will be uploaded on the website as soon as this is possible	S



3.2 Rating of progress implementation towards delivery of outputs (Implementation Progress)

Outputs/Activities ³	Expected completion date ⁴	Implementation status as of 30 June 2021 (%)	Implementation status as of 30 June 2023 (%)	Progress rating justification⁵, description of challenges faced and explanations for any delay	Progress rating ⁶
COMPONENT 1:					
				Previous reporting period: The adduction between wells and reservoirs were completed in Ad Bouya and Kalaf during the previous reporting period. Irrigation systems were established as well in Ad Bouya. In Dinamali, two underground water cisterns were built, each of a capacity of 100m3 for domestic use. The dyke has been strengthened and has been functional since the last reporting period.	MS
Output 1.1: Protective measures against droughts and floods in cities and settlements.	June 2023	100%	100%	<i>Current reporting period:</i> An assessment was conducted by a hydrologist consultant on all the water distribution systems in all the project sites. Overall, the perimeters well maintained but all the taps and some smaller pipes needed to be replaced. The consultant also provided some actionable, costed recommendations for the future of the water distribution system. These recommendations include important repairs in Koudi koma, Ad bouya and particularly in Kalaf, where a new layout has been proposed. These recommendations have been discussed during the presentation of the exit strategy and will be included in the implementation plan of the LDCF-4, when possible.	
Output 1.2: A hydrogeological model of current and projected water resources availability.	December 2022	70%	100%	<i>Current reporting period:</i> The report has been completed and is available <u>here</u> . The ARIA team conducted a mission in October 2022 to finalise the climate vulnerability assessment and present some preliminary results to national stakeholders.	S
Output 2.1. Restored vegetative cover and soil stabilized in Acacia woodlands in Hanlé	June 2023	40%	100%	<i>Current reporting period:</i> In total, only 4.5ha of reforestation were successfully completed, in Koudi Koma. In Lilya Bouri, the perimeter was	MU

³ Outputs and activities (or deliverables) as described in the project logframe (and workplan) or in any updated project revision.

⁶ To be provided by the UNEP Task Manager

⁴ The completion dates should be as per latest workplan (latest project revision).

⁵ As much as possible, describe in terms of immediate gains to target groups, e.g. access to project deliverables, participation in receiving services; gains in knowledge, etc.



				 delimited, and the nursery was strengthened and seeded, producing enough seedlings to support reforestation activities beyond the life of the project. <i>Lessons learned and reflections:</i> Here as well, it is important to question the achievability of the proposed target as well as the sustainability of the results, considering the harsh environmental condition and the isolation that the communities in Hanlé face. Several of these communities will continue to receive support during the LDCF-4 project. However, it is important that future activities set realistic targets while taking in consideration the environmental and social context within which these activities take place. 	
Output 2.2. Restored mangroves in central coastal zones of Tadjourah.	June 2023	80%	100%	 Current reporting period: As reported by the RVE, the target could not be met: while about 4.2 ha of mangrove has been planned only 1.1 ha of the area was completed. However, the community has noted significant improvement in the population of fish and shellfish around the mangrove area. They plan to also explore ecotourism opportunities. Lessons learned and reflections: See outcome 2, indicator 2 for lessons learned and reflections. 	MU
Output 3.1. Productive oasis ecosystems that provide livelihoods and ecosystem services.	June 2023	55%	100%	Current reporting period:Water availability has been the main limiting factors to the completion of project activities. All water distribution systems have been finalized and 3 out of 5 are functional. The assessment by the hydrologist consultant, the RVE and the subsequent repairs done helped to alleviate some of the water access issues.Despite these issues, as well as the late start of activities on agriculture, agricultural training continued until the end of the project on average 300 community members trained over the course of the project. Training continued on production and commercialisation (crops and fodder), with project participants discussing exploring with the agrologist consultant the feasibility of creating farmers baskets to supply selected supermarkets and individuals in Djibouti	MU



				markets participa initiative (US\$ 11 about U	far, farmers sold their prod b. While access remain an is ants have expressed their e b. The average price for a ba c) and the average price for S\$ 8.	ssue in Hanlé nthusiasm to asket is abou fodder is 15	è, pursue this ut 2000 DJF 500 DJF or	
				Locati on Hanlé	Main themes Training on the fruiting, harvesting and use of date palms Training on the planting of fruit trees (guava and lemon trees)	Average #of	Completion date Completed in March 2023	
				Hanlé 2	Training on the fruiting, harvesting and use of date palms Training on the commercialization of fodder (Leucaena) and on the creation of compost and bio-fertilizer Training on the planting of fruit trees (lemon trees)		Completed in March 2023	
				Ad Bouya	Training on the commercialization of fodder (Leucaena) and on the creation of compost and bio-fertilizer Training on the fruiting, harvesting and use of date palms		Completed in March 2023	
				Kalaf	Training on the development and intensification of fodder crops (Leucaena, Moringa and Panicum) Training on the planting of fruit trees (guava, papaya and lemon trees)		Completed in March 2023	
				Sourate water.	the agricultural trainings cc and Darkenle because of the second se			
Output 3.2. Increased, diversified and resilient livelihoods from the introduction of sustainable alternative economic development activities.	June 2023	80%	100%	A follow assess the issu	t reporting period: up mission was organised the sustainability of the active es that were described in the nick mortality, egg storage, p	vity and addr	ess some of	MU



Output 4.1. Increased institutional and technical capacity of local and national government.	June 2023	65%	100%		1
				End of the project reporting: As mentioned in Outcome 1 indicators 1, a set of 3 workshop took place in Tadjourah, Dikhil and Djibouti-ville in March 2023 with both local and national policy makers. These workshops were organised and facilitated by the ministry of environment. The objectives of the workshop were (i) to present the effect of climate change on the country; (ii) to present a stocktaking of the project at completion; (iii) to share with stakeholders the results of the study and (iv) discuss its implication in regard to the exit strategy and each stakeholder progamme of work. In total, 69 local and national policy makers participated in the workshop.	S
Output 4.2. Increased institutional capacity at local levels for adaptation to climate change using an ecosystem- based approach.	June 2023	60%	100%	Previous reporting period: The agriculture consultant has supported the creation of water management committees through a training that took place in Kalaf and Adbouya in March 2021. The committees were formally created late 2021. Current reporting period: A 4-day workshop was organized in each of the project sites for elementary school students and their teachers between December 2022 and March 2023. About 40 students participated in each location, both in class and hands-on activities. Each workshop was composed of 5 modules: Introduction to climate change (in class) Climate change adaptation Climate change mitigation Climate change mitigation Climate resilient planning (for teachers and school administrators) Climate requirements and challenges, most of the training participants were men and boys. 	MU



	Committees and cooperatives remain to be formally organised and trained. A follow up to this activity has therefore been included in the upcoming LDCF-4 project that will start in the country probably next year.	
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4. Risk Rating

4.1 Table A. Project management Risk

Please refer to the Risk Help Sheet for more details on rating.

Risk Factor	EA's Rating	TM's Rating
1. Management structure – Roles and responsibilities	M Several difficulties occurred in terms of internal coordination and limited technical skills from project team members. Despite these issues, the team was efficient in executing their own role and responsibilities over the course of the project implementation.	M Some issues witnessed during project implementation with duplication of roles and responsibilities within the project team, lack of workplan and performance evaluation which led to limited delivery and inefficiencies of some staffs and consultants. Issues solved after several years by the ministry's direction of environment who is responsible for project's execution.
2. Governance structure – Oversight	M The project coordinator as well as the admin and finance officer were the main project staff. External support was provided by the TM and the CTA. External support was constant and evolving over time.	M Strong oversight, support and supervision required from the CTA and TM. Efforts often going beyond institutional roles and responsibilities.
3. Implementation schedule	H Important delays were recorded during the implementation. The project has undergone a change of coordinator; however delays also occurred because of the inability for the project to obtain quality infrastructure material within the country. All building materials had to be imported, significantly increasing implementation time. Finally, the project introduced new concept, hence more time is needed for their appropriation.	H Considerable delays of implementation. Total of 9 years of implementation and some activities would have required more time to be strengthened including agriculture and ecosystem restoration (long timeframe).
4. Budget	H The budget for many of the activities was underestimated, with the extension of project implementation still insufficient to set up certain infrastructure.	H The available budget for some key activities was not sufficient to fully deliver as planned. This was the case for the dyke construction and ecosystem restoration in such difficult contexts. As a result several targets had to be drastically reduced to remain realistic and some activities had to be replaced to redirect funds. During this reporting period, the cost estimate provided by the hydrologist to support repairs of key water infrastructure of the project in Kalaf, Sourate and Darkenle could not be met which resulted in the impossibility to meet some key targets
5. Financial Management	L	M



	In general, financial management was carried out smoothly and efficiently,	Financial reporting and budget revision always developed on time and of good quality and submitted with bank statement for reconciliation. Procurement processes followed the rules of the MEDD
		and remained internal and the outcomes rarely shared with UNEP. Some issues were witnessed and discussed during the project implementation including the payment of a company that did not deliver (construction of the mangrove nursery).
6. Reporting	M Data collected in the field can sometimes be overestimated for certain large-scale activities, which is generally due to a lack of expertise in calculation tools.	S Difficult to access right information from the ground. RVE results differ from information self-reported by the project team. This is the case for the surface of acacia and mangrove restored which is respectively 7ha (project team) vs 5ha (RVE) for acacia and 4ha (project team) vs 1.1ha (RVE) for mangrove Some information is just missing including the quantity of crops and fodder harvested and sold, the activity report of the agricultural trainings with signed attendance list. This is mainly due to lack of capacity from beneficiaries and local consultants.
7. Capacity to deliver	M Local or national capacity is largely available, but some expertise such as climate modelling is not.	 S Local/national capacity to deliver was constrained for some key activities including: The climate modelling and vulnerability assessment work that therefore had to be procured internationally. The water infrastructure that was procured nationally but were implemented with some very limited success. As a result, 3 sites do not have access to water. Exit strategy was developed by a national consultant but with limited success and considerable support from TM and CTA

If any of the risk factors is rated a Moderate or higher, please include it in table B below.

4.2 Table B. Risk-Log

Insert ALL the risks identified either at CEO endorsement (inc. safeguards screening), previous/current PIRs, and MTRs. Use the last line to propose a suggested consolidated rating.

Diek	Risk affecting:	Risk Rating										Variation respect to last rating			
Risk	Outcome / outputs	CEO ED	PIR 1	PIR 2	PIR 3	MTR	PIR 4	PIR 5	PIR 6	PIR 7	PIR 8	Δ Justification			



Risk 1 Disruption of project implementation by extreme climate events, e.g. floods.	Outcomes 1, 2 and 3	L			М	М	Μ	Μ	М	=	During this reporting period, the country is in the middle of a 5-year drought. Some minor repairs were completed (pipes and taps) in the water distribution systems. The nurseries in Raysali and Lilya Bouri remain vulnerable to high winds in their respective areas. The exit strategy recognises this vulnerability and identifyes the institutional support needed to mitigate any future events.
Risk 2 Insufficient surface water availability, groundwater availability and rate of groundwater recharge to meet local demand.	Outcome 3	L			М	S	М	S	S	=	As previously reported, while all the water infrastructure are operational in all project sites, water availability has been one of the most important limitations for the project in 3 out of the 6 sites. In Sourate, while the water system is operational, the RVE highlighted that the difference in altitude between the point of water extraction and the agricultural plots is too small to provide the pressure needed for the water to arrive on the site. In Dinamali, the water is not sufficient for agriculture, but women of the community have been engaged in handicrafts production, bringing additional income to their families. In Darkenlé, the water system has been malfunctioning for at least 6 years. As this system is under the responsibility Ministry of water, the project has done its du diligence and contacted to the ministry multiple time to address the issue, to no avail. Some small repairs have been completed by the hydrologist consultant; the consultant also worked closely with the local water management bodies to discuss good practices and unsustainable water management issues. Substantial work is needed for the maintenance of these water systems and to ensure that the people using these systems have access to water. These considerations have been included in the exit strategy.
Risk 3 Limited support or buy- in from local communities for sustainable resource management practices. The MTR also notes that delays in implementing training and awareness raising activities are creating problems to ensure ownership by the beneficiaries and project sustainability.	Outcome 3	М			S	S	S	S	М	Ļ	One of the lessons learned of the project is that with appropriate level of technical support, the buy-in can be improved. For instance, once the appropriate infrastructure (water access) were functioning and regular hands-on agricultural training started the communities were more willing to take part in the agricultural activities in Hanle. The agricultural consultant introduced the possibility of creating "farmer's baskets" for farmers to sell their organic production and linking them with wholesalers and other intermediaries that can help the communities (especially in Hanlé) to specifically address their needs. This idea emerged following discussion with the communities and understanding their needs. The same



											can be said for the aviculture, as this activity is quite niche in the country. Creating activities that address specific needs and creating a concrete pathway to do so is one the key way to ensure ownership. The implementation of the LDCF-4 project will further strengthen these achievements.
Risk 4: Limited institutional capacity of the government as a result of existing commitments to related ongoing initiatives. Lack of time to provide required support to implement some of the project activities (e.g. remote support to the consultants for the climate projections), which can create additional delays to implement other key activities e.g. training of policy-makers on mainstreaming adaptation. This situation has been exacerbated by the impacts of Covid-19, which prevent travel	All components	Μ			Μ	Μ	М	М	М	=	Limited institutional coordination and communication have been identified as bottlenecks during the project implementation. The workshops conducted in October 2022 and March 2023 help to bring forward climate change issues to the forefront and facilitated the identification of synergies and pathways for line ministries to include climate change impact in their strategies.
to Djibouti. Risk 5: Insufficient national financial resources to maintain project interventions in the long-term.	All components	М			S	S	Н	Н	н	=	The exit strategy was finalised in March 2023. While clear roles and responsibilities has been identified to ensure the sustainability of the project result, public funds could not be secured before the end of the project. As a result the sustainability of most activities will be dependent on the
Risk 6: Limited technical capacity to conduct preliminary studies and design the implementation of activities.		М			М	М	L	L	L	=	implementation of the next LDCF project in the cou All Project staff have been hired. The project exit strategy has been finalised and presented to national policy makers for internalisation.
Risk 7: Baseline project activities not achieved as planned.		М			Μ	L	L	S	S	=	As previously discussed, environmental challenges (limited water availability, high sand and wind) and institutional bottlenecks have greatly hampered the implementation of the project. However, it is important to reflect on the soundness of some of these indicators, taking in consideration Djibouti's environmental and institutional conditions. Several targets set at project design stage seemed unattainable and not cognisant of



Risk 8: Climate change										the country's environmental and institutional conditions and were therefore revised such as the number of ha of acacia restored). Despite those revisions, several targets were still not met at the end of project's implementation. Despite these implementation shortcomings, the project managed to have significant impact on the vulnerability of the participating communities. Lessons learned from the implementation and strengthened institutional linkages creates a strong basis for the implementation of the LDCF- 4 project. No national emergencies or civil unrest took place during
adaptation priorities undermined by national emergencies or civil unrest.	F	1		L	S	L	L	L	=	the reporting period
Risk 9: Vandalisation or theft of infrastructure such as pumps and solar panels	Ν	Л		L	L	L	Μ	Μ	=	No further vandalism events were reporting during this reporting period. However, this remains a risk as the project ends and the site caretakers are not paid anymore by the project. Budget has been set aside in the project LDCF-4 to ensure the continuity of the protection provided to this infrastructure: training on maintenance and repair for key members of the community will be provided (outputs 1.1, 1.2 and 2.1 of LDCF-4).
Risk 10: Covid-19 crisis has restricted travel to and within Djibouti, therefore compromising the mission of the CTA and key consultants and the implementation of project activities. No community trainings were possible as gatherings were prohibited. Moreover, only the PM was able to work from home during the first weeks of the crisis as governmental institutions had closed down; the other project team members had no technologies (internet, laptop) to work. Currently, only 2 project team members – the PM and his financial assistant – are allowed to work from the office.						S	М	L	Ļ	All Covid restrictions were lifted.



Hence since March 2020, the project is led by a very limited team.											
Risk 11: Slow progress to implement key activities in Darkenle could compromise the uptake of agropastoral activities by the project beneficiaries given the need for long, sustained training on agriculture, a new activity for the population of Darkenle. The same is true for Sourate which still does not have access to water due to the broken borehole waiting to be repaired by the government							S	Н	н	=	In Sourate and Darkenlé, no activities were implemented due to limited water availability. The exit strategy includes recommendations to the relevant ministries to address these issues. In addition, the project LDCF-4 will also target the current project participants in both Sourate and Darkenlé (among others) and provide some follow up training and use the agropastoral plots constructed during the current project to ensure agriculture become a profitable activity.
Consolidated project risk	n.a	S	S	М	М	S	S	S	S	=	Overall project risks remain substantial. It is important to recognise the progresses that have been made for the achievement of several outputs and outcomes. However, the project faced several environmental, infrastructure and institutional barriers that have made it difficult to achieve some key baseline targets. In addition, post-project sustainability will need to be strengthened for the activities and benefits to continue after the end of the project. These shortcomings have proven to be important lessons to be learned, the RVE have proposed some specific recommendations to address some of the project shortcomings. These lessons learned and recommendations will be applied in the implementation the new LDCF-4 project sustainability and maximise impact.

Table B. Outstanding Moderate, Significant, and High risksList here only risks from Table A above that have a risk rating of M or higher in the current PIR

Risk	Actions decided during the	Actions effectively	Additional mitigation measures for the next periods					
	previous reporting instance (PIR _{t-1} , MTR, etc.)	undertaken this reporting period	What	When	By whom			
Risk 2: Insufficient surface water availability, groundwater availability and rate of groundwater recharge to meet local demand.	The climate modelling study has been completed during this reporting period. A vulnerability assessment on water resources in Hanlé and Tadjourah was also conducted in parallel to specifically	The climate modelling study was completed and presented to local and national stakeholders in Hanlé, Tadjourah and Djibouty ville	N/A (end of project)	N/A (end of project)	N/A (end of project)			



	look at water availability in the present and future in the project sites. A mission was conducted by the water vulnerability expert to the project sites in March 2022 and led to the development of a set of recommendation on water access and water use. The ToRs of an hydrologist have been developed to implement those recommendations	A hydrologist consultant conducted an assessment of the water distribution systems and advised a completed redesign of the systems in Kalaf and Sourate and Darkenlé. These recommendations are in line with the technical recommendations formulated by the RVE in this regard. However, as budgets are limited, these recommendations will be tking in consideration in the implementation of the LDCF-4 project. The maintenance of the water has also been included within the project's exit strategy and formally presented to relevant decision makers. The improved agricultural	N/A (end of project)	N/A (end of	N/A (end of
Risk 3: Limited support or buy- in from local communities for sustainable resource management practices.	participation rates have drastically improved in some sites. The communities are witnessing improvement in their lives though the agriculture and the ecosystem restoration activities.	the support and buy-in from local communities. These training activities were designed to not only achieve project targets but also address specific issues (pest management and market access for instance) that the communities had. Moreover, the Project LDCF-4, whose implementation will start late 2023, will ensure the support and follow-up of agriculture activities on all Project sites, in order to guaranty the sustainability or learnings and further improve buy-in from the community.			



Risk 4: Limited institutional capacity of the government as a result of existing commitments to related ongoing initiatives.	Regular call and check in using WhatsApp, Teams and zoom have continued throughout this reporting period. UNEP and CTA travels have resumed, with a mission conducted in March 2022, alongside the vulnerability experts and in July 2022 as a follow up. The communication challenges have impacted the vulnerability assessments conducted by the Aria Technologies Teams. Policy makers were not as responsive remotely as expected; as a result, the vulnerability assessment lack their perspective. However, they were fully involved during the mission in March 2022 and are prepared to participate in the workshop that will take place in September 2022.	In addition to the workshop conducted in March 2023 targeting local and national decision makers, the Ministry of environment designated a focal point, as mandated by the exit strategy, whose objective is to improve ownership of project results, strengthen exchanges between key local and national stakeholders and strengthen the involvement of participants, to ensure greater operational effectiveness and efficiency in the implementation and sustainability of adaptation activities. This will be particularly relevant for the implementation of the LDCF-4 project.	N/A (end of project)	N/A (end of project)	N/A (end of project)
Risk 5: Insufficient national financial resources to maintain project interventions in the long-term.	A first draft of the exit strategy has been reviewed and received. The CTA has been working with the national consultant in order to finalise the exit strategy. However, communication has been difficult, and it is likely that the CTA will need to directly prepare an action plan and finalise the exit strategy. In addition, as some important delays have been witnessed and the targets have not been reached within this project, the project sites with agropastoral plots will be included within the recently submitted LDCF-4 project to continue key support.	The final draft of the exit strategy has been received, approved, and presented to relevant decision makers during the Project Steering Committee in December 2022 and during a series of workshops in March 2023. In addition the RVE formulated a number or recommendation regarding the overall governance and institutional support of the project. The recommendations from both the RVE and the exit strategy will be internalised and included in the implementation strategy of the LDCF-4 project.	N/A (end of project)	N/A (end of project)	N/A (end of project)



Risk 7: Baseline project activities not achieved as planned.	The project team has been working closely with the communities to implement the activities as much as possible, and ensure that the involvement and trust that they have gained over the past year will translate into a continuation of project activities beyond the life of the project	The RVE and the exit strategy have identified important environmental challenges (limited water availability, high sand and wind) and institutional bottlenecks. The recommendations emerging from these two exercises will create a strong basis for the result framework and implementation of the LDCF-4 project.	N/A (end of project)	N/A (end of project)	N/A (end of project)
Risk 9: Vandalisation or theft of infrastructure such as pumps and solar panels	No issue of vandalism witnessed to date on the water pumps and in the solar panels. However, as the project is coming to an end, discussion have taken place regarding available budget to pay the site caretakers beyond the life of the project.	This issue has been included within the exit strategy and presented to national stakeholders. Finally, a budget has been set aside in the project LDCF-4 to ensure the continuity of the protection provided to this infrastructure: training on maintenance and repair for key members of the community will be provided (outputs 1.1, 1.2 and 2.1 of LDCF-4).	N/A (end of project)	N/A (end of project)	N/A (end of project)
Risk 11: Slow progress to implement key activities in Darkenlé could compromise the uptake of agropastoral activities by the project beneficiaries given the need for long, sustained training on agriculture which is a new activity in this project site. The same is true for Sourate which still does not have access to water due to the broken borehole waiting to be repaired by the government	All constructions have been completed in all the project site, except in Darkenlé and Sourate. For both sites, follow ups were done by the project team and ministry of environment with the Directorate of Water. The Directorate is responsible for the repairs in Darkenlé (for the adduction; to link the reservoir and the borehole). For Sourate, the issue regarding the lack of water was also raised with the Ministry. A formal assessment of the issues has been included in the ToR for the hydrologist that will be recruited in September.	As mentioned in risk 2 and 7, a formal water system assessment was conducted in the project implementation sites. The recommendations emerging from this report (as well as the RVE and exit strategy) will be included in the LDCF-4 project implementation strategy. Finally, the factsheets will be updated to include the elements that led to this situation as well as the lessons learned and good practices that emerged from the implementation of these activities.	N/A (end of project)	N/A (end of project)	N/A (end of project)



	As it is unlikely that the issue will be solved before the end of the project, the project team has been exploring to implement some alternative activities in these 2 sites.		
Add rows as needed to reflect additional risks			

High Risk (H): There is a probability of greater than 75% that assumptions may fail to hold or materialize, and/or the project may face high risks. Significant Risk (S): There is a probability of between 51% and 75% that assumptions may fail to hold and/or the project may face substantial risks. Moderate Risk (M): There is a probability of between 26% and 50% that assumptions may fail to hold or materialize, and/or the project may face only modest risks. Low Risk (L): There is a probability of up to 25% that assumptions may fail to hold or materialize, and/or the project may face only modest risks.

Project Minor Amendments

Minor amendments are changes to the project design or implementation that do not have significant impact on the project objectives or scope, or an increase of the GEF project financing up to 5% as described in Annex 9 of the Project and Program Cycle Policy Guidelines.



Please tick each category for which a change occurred in the fiscal year of reporting and provide a description of the change that occurred in the textbox. You may attach supporting document as appropriate.

To be completed by Task Managers

5.1 Table A: Listing of all Mine	or Amendment
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Results framework	Minor project objective change
Components and cost	Safeguards
Institutional and implementation arrangements	Risk analysis
Financial management	Increase of GEF project financing up to 5%
Implementation schedule	Co-financing
Executing Entity	Location of project activity
Executing Entity Category	Other

[Annex document linked to reported minor amendment]

amendments	

5.2 Table B: History of project revisions and/or extensions

To be completed by Task Managers

Version	Туре	Signed/Approved by UNEP	Entry into Force (last signature Date)	Agreement Expiry Date	Main changes introduced in this revision
Original legal instrument	Project Cooperation Agreement (PCA)	yes	15 July 2014	31 December 2018	
Extension 1	Extension	yes	21 May 2018	30 June 2021	30 months added
Extension 2	Extension	yes	30 June 2021	30 June 2023	24 months added

GEO Location Information:



The Location Name, Latitude and Longitude are required fields insofar as an Agency chooses to enter a project location under the set format. The Geo Name ID is required in instances where the location is not exact, such as in the case of a city, as opposed to the exact site of a physical infrastructure. The Location & Activity Description fields are optional. Project longitude and latitude must follow the Decimal Degrees WGS84 format and Agencies are encouraged to use at least four decimal points for greater accuracy. Users may add as many locations as appropriate. Web mapping applications such as <u>OpenStreetMap</u> or <u>GeoNames</u> use this format. Consider using a conversion tool as needed, such as: <u>https://coordinates-converter.com</u> Please see the Geocoding User Guide by clicking <u>here</u>

Location Name	Latitude	Longitude	Geo Name ID	Location Description	Activity Description
Required field	Required field	Required field	Required field <u>if</u> the location is not an exact site	Optional text field	Optional text field
Adbouya	11.8596667	43.01515167		Village of Ad Bouya in the Tadjourah region of Djibouti	Irrigated agro-pastoral plot for climate-resilient agriculture and aviculture
Tadjourah	11.7884919	42.87949778		City of Tadjourah in Djibouti	Construction of the Marsaki Dike of a length of 1,8 km to protect the Marsaki neighborhood against floods coming from the wadi
Kalaf	11.7586889	42.79146389		Village of Kalaf in the Tadjourah region of Djibouti	Irrigated agro-pastoral plot for climate-resilient agriculture, aviculture, Handcraft, Milk processing and conservation, Veterinary training for livestock
Kouddi-Koma	11.35275	42.15880556		Village of Kouddi-Koma in Hanle plain of Dikhil region in Djibouti	Irrigated agro-pastoral plot for climate-resilient agriculture, restoration of 10ha of acacia trees
Liliya-Bourri	11.4272972	42.90736389		Village of Liliya-Bourri in Hanle plain of Dikhil region in Djibouti	Irrigated agro-pastoral plot for climate-resilient agriculture, restoration of 5ha of acacia trees
Sourate	11.8097694	42.90463056		Village of Sourate in the Tadjourah region of Djibouti	Irrigated agro-pastoral plot for climate-resilient agriculture
Darkelleh	11.629325	42.6408		Village of Darkenlleh in the Tadjourah region of Djibouti	Irrigated agro-pastoral plot for climate-resilient agriculture
Dinamali	11.11556	42.19222		Village of Dinamali in the Tadjourah region of Djibouti	Milk processing and conservation, Veterinary training for livestock, Handcraft
Rayssali	11.7803878	42.93830694		Mangrove restoration site	Mangrove restoration and handcraft



[Please provide any further geo-referenced information and map where the project interventions is taking place as appropriate]

